



Sustainability in action:

United Nations Principles of
Responsible Management
Education (UN PRME)

Sharing information on
progress 2021-2022

About the Principles for Responsible Management Education

The Principles for Responsible Management Education (PRME) is a UN Global Compact-backed initiative with the mission to inspire and champion responsible management education, research, and thought leadership globally by bridging relationships and catalysing collaboration among the United Nations, the Global Compact, and academia.

The Six Principles of PRME are based on internationally-accepted values endorsed by UN Member States and provide an engagement framework for higher education institutions to embed responsibility and sustainability in education, research, and campus practices through a process of continuous improvement. Higher education institutions that become signatories to PRME make a public commitment to knowledge creation and education that supports and develops leaders who can manage the complex challenges faced by business and society in the 21st century. Similar to the Global Compact, PRME is a multi-stakeholder platform with a dynamic network of local and global learning communities, including thematic working groups and regional chapters which collaborate on projects and events. Since its official launch in 2007 by UN Secretary-General Ban Ki-moon, the PRME initiative has grown to more than 600 leading business schools and management-related academic institutions from over 80 countries across the world. Learn more: www.unprme.org

Cranfield School of Management has been a signatory member of the UN Principles for Responsible Management Education since 2008.

Acknowledgments

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About Cranfield School of Management

We are one of the oldest management schools in Europe. As part of Cranfield University, a UK specialist postgraduate university, we are uniquely placed to connect technology and leadership. Our contribution to global innovation is world-leading, changing the way society thinks, works and learns.

Our mission

To transform the practice of management around the world by creating and disseminating applied knowledge.

Our vision

- To be a world-leading management school for responsible management thinking and practice.
- To conduct research that has a real impact on the practice of management around the world.
- To be an employer of choice for faculty who are passionate about transforming the practice of management.

Our key activities

- Leading-edge, collaborative research and consultancy.
- Full-time and part-time postgraduate degree programmes (MBA, MSc, DBA, PhD).
- Executive development for middle and senior managers.
- Customised company programmes.

Accreditations

We are one of an elite group of schools worldwide to hold the quadruple accreditation of: the Association to Advance Collegiate Schools of Business (AACSB International), the Association of MBAs (AMBA) and European Quality Improvement System (EQUIS). In recognition of our outstanding student entrepreneurship provision and dedicated work with small or medium-sized enterprises (SMEs) to support growth in the local community, we have also achieved Small Business Charter accreditation.



Letter from the Vice-Chancellor

At Cranfield University, we are at the forefront of imagining and delivering a sustainable future. Through our sector-facing themes, we are teaching the next generation of leading scientists, engineers and managers to understand their role in a new global green economy and to develop the skills and knowledge needed to lead change and thus make an immediate impact.

Integral to our corporate plan, *Ambition 2027 – creating impact together*, we have a renewed vision: 'to be valued globally for tackling the real-world issues of today to deliver a sustainable future'. I am proud of the key defining actions we have taken that will help us to make substantial progress towards this vision.

Signing the UN Sustainable Development Goals Accord in 2022 has made clear our ongoing focus on applying our academic expertise, industry insight and new technological developments to drive positive impact in government, business and wider society. We are committed to delivering education around sustainability across our curriculum, in a powerful and relevant way for all students. We are creating the leaders of the future, who will have real influence in helping to find solutions to global challenges. I'm delighted that we have introduced new sustainability scholarships to help students access our education offerings. For the first time we have also entered data to the Times Higher Education Impact Rankings, signalling our commitment to strong governance and leadership in sustainability.

I'm excited by the difference that our teaching, research and global partnerships will continue to make towards a sustainable future for us all.

Professor Karen Holford CBE FREng
Chief Executive and Vice-Chancellor



Guided by our vision, mission, values, UN Sustainable Development Goals and sector-facing themes, our corporate plan defines our ambitions for the next five years.

Our vision

To be valued globally for tackling the real-world issues of today to deliver a sustainable future.

Our mission

We work in partnership with business, academia, governments and other organisations to develop and deliver applied research and innovative education in science, technology, engineering and management.

Our values

Our values (Ambition, Impact, Respect, Community) help to define who we are, guide the way we behave and shape our decisions. They sit at the heart of our plan.



Our areas of focus

Our ambitions are to:

- be an Employer of Choice;
- be a Partner of Choice;
- create the UK's Applied Research Powerhouse;
- create Distinctive Cranfield Learners.

These areas are not mutually exclusive. Each one interconnects and needs the others to succeed - we know we are stronger when we work across our boundaries.

We will monitor our progress against seven key performance indicators.

Our strategies

These four ambitions will be realised through our eight interconnecting strategies: research and innovation, education, people, internalisation, reputation, information technology, estates, and finance.

Foreword

The School of Management's mission is to transform the practice of management around the world by creating and disseminating applied knowledge. Becoming a world leading management school for responsible management thinking and practice is central to our vision. We engage globally to make business better; everything we do as educators is designed to translate into more responsible management practice. We have always spanned the space between theory and practice as both a creator and a vector of change in the "real world". I am proud to lead this unique school as we intensify our efforts to shape a more sustainable world.

[Cranfield School of Management](#) is part of a university built upon a focus on technology and management and is exclusively postgraduate and post-experience focused. Over half our students study part time whilst in full-time employment. We blend innovative, accessible methods of teaching with the academic and industry experience of our faculty to drive real and immediate organisational change through our students' participation at Cranfield. Our unique ability to operate at the technology-industry-management nexus, and our commitment to embedding sustainability into it, is demonstrated by our [Sustainability MSc](#), which is jointly designed and delivered by the School of Management and the School of Water, Energy and Environment.

We strive to practice what we preach. The University's new corporate plan has elevated our responsible values through campus-wide sustainability goals and is driving greater commitment from faculty, staff and students. We promote sustainability literacy by teaching core sustainability modules across management programmes, as well as developing innovative specialist sustainability modules and programmes. In the 2023 Financial Times MBA Global rankings, our redesigned MBA programme was ranked 7th in the world for student diversity, 14th in the world for faculty diversity, 1st in the UK and 17th in the world for our commitment to reducing carbon footprint. In the next reporting period, we will be assessing and selecting the best frameworks to hold ourselves accountable to our progress in promoting responsible and sustainable leadership through our teaching and research.

We invest and support innovation in learning methods. We are developing new approaches to teaching which make lifelong learning more inclusive, accessible, and with a lower carbon footprint. We support faculty to develop innovative learning experiences which inform and inspire responsible management practice, including investing in the 'Exploring Sustainable Futures' game, which was showcased at COP26 - the only university-run workshop at the conference.

Cranfield School of Management leads a major university-wide research initiative which brings together experts in management, engineering and natural sciences to create an ecosystems approach to understanding organisational and systems resilience. Our Gender, Leadership and Inclusion Centre is a hub for a thriving interdisciplinary research community that also underpins university-wide inclusion initiatives.

Our emphasis on post-experience education means that we apply learning in the "real world" by addressing problems and delivering solutions to practitioners. We take a partnership approach to our research and teaching, delivering co-produced programmes and customised executive education. Our Executive MBA in partnership with Grant Thornton placed in the top 10 in the UK, in the Financial Times EMBA 2022 rankings. This close-to-practice approach ensures we prioritise teaching and research which address the skills gaps and challenges faced by business. We engage with local businesses and civic organisations to deepen our regional influence and contribute to responsible economic growth through the Bettany Centre for Entrepreneurship, as exemplified by the Ready for Net Zero Growth programme launched in 2022.

We actively create communities of shared interest and knowledge around critical issues related to responsibility and sustainability. Our Sustainable Business Group supports our pan-university focus on sustainability through the [Sustainability Network](#), a vehicle for dialogue on sustainability topics with scholars, practitioners, and students. We engage in dialogue with businesses at external events such as the Edie Sustainable Leaders conference and through internal events including Cranfield's VentureDay. We also share our approach to sustainability teaching and learning with other educators, for example by hosting an Exploring Sustainable Futures game workshop at the British Academy of Management conference.

Led by our Energy and Environment Committee, we continue to improve our university's own sustainability performance. We have set new 2030 targets on carbon, waste and water management, travel, biodiversity, pollution control and climate adaptation, and signed up to the UN University and College SDG Accord. We have also made progress on our objective to be a net zero campus by 2030, supported by significant investment in our energy infrastructure, and a newly formed team of energy champions.

One benchmark of the School of Management's sustainability performance is the retention of our prestigious EQUIS, AACSB and AMBA accreditation for the maximum further five years. Our latest accreditation reports particularly commended our support for business start-ups, our work with charities and our community engagement, as well as recognising our commitment to high ethical standards in our teaching and research.

Through our own endeavours, and through our partnerships with other university schools, businesses and the wider community, we apply the PRME principles to achieve a more inclusive and sustainable global economy.

Professor David Oglethorpe
Pro-Vice-Chancellor and Dean of Cranfield School of Management



Principle 1 | Purpose

We develop the capabilities of students to be future generators of sustainable value for business and society at large and to work for an inclusive and sustainable global economy.

We want our students to be both the generators and stewards of sustainable value. Many of them are experienced professionals when they come to us, and we endeavour to set them on a path that takes them beyond delivering profit to creating value for people and planet.

Over the years that Cranfield School of Management has committed to PRME, highly motivated members of faculty and staff have worked together to bring responsibility and sustainability to the forefront of our management education, research, and outreach. The University's new corporate plan has elicited a more concerted effort to embed sustainability across all our activities and, with this, a renewed sense of urgency to create a targeted plan of action to embed Principles of Responsible Management Education within the School of Management.

Through production of this report, our positive engagement with colleagues and senior leadership, including our Vice Chancellor, reflects a university-wide commitment to embedding the PRME Principles that extends beyond faculty to include professional service units, including Internal Communications, Alumni Relations and Facilities. These conversations have created significant interest and buy-in from stakeholders across the university, and we are looking forward to continuing our mission, united.

We have recently joined an Advance HE initiative which promotes collaboration between universities to advance sustainability by sharing ideas and developing action plans to improve each institution's Times Higher Education Impact Rankings. School of Management faculty and staff are part of these multidisciplinary collaborative teams, bringing back practical actions to implement and raising the profile of sustainability in our education offering.

The Sustainable Business Group continues to be the hub for sustainable management and business, convening collaborations with other disciplines within the School of Management and with the University's technical schools to deliver interdisciplinary sustainability-oriented teaching, research and outreach. As well as launching a new [Sustainability MSc](#) in partnership with the School of Water, Energy and Environment, the group has led the development of five sustainability-focused modules for graduate programmes, and a further four modules for executive education programmes since our last report.

We see PRME as a dynamic process that requires a holistic approach to our role as educators, recognising the interdependence between each principle. So, to develop our students' capabilities to generate sustainable value (Principle 1: Our Purpose), we are clear on:

- Why we have this purpose: [Our Values \(Principle 2\)](#).
- How we will accomplish it: [Our Methods \(Principle 3\)](#).
- How we understand and tackle the challenges: [Our Research \(Principle 4\)](#).
- Who we need to connect with: [Our Partnerships \(Principle 5\)](#).
- Where we can facilitate debate: [Our Dialogue \(Principle 6\)](#).
- What we do: [Our Organisational Practices \(Principle 7\)](#).

Goals:

1a:

Contribute to a university-wide action plan around improving our performance in the Times Higher Impact ranking.

1b:

Appoint a sustainability/PRME champion in every Centre within Cranfield School of Management

Promoting a one-university approach to sustainability



Fig 1: Our sector-facing themes across the university

The [Sustainability at Cranfield](#) webpage allows visitors to access the University's sustainability-related activities through its sector-facing themes. Grouping our teaching, research and activities around these sector-facing themes, rather than by traditional academic discipline, reflects our outward-facing orientation on social and environmental challenges and solutions. This webpage is a powerful resource that will be continuously updated and enhanced: internally, to raise awareness of various sustainability activities and ways to collaborate, and externally to showcase the breadth of activity across the campus to potential students, businesses and higher education partners.

Increasing our impact as a university

One of the seven Key Performance Indicators by which we will measure the success of our new corporate plan, *Ambition 2027*, focuses on sustainability. We first reported to the Times Higher Impact rankings in 2023 and our aim is to improve our ranking relative to this base position by 25% by 2027. To support this goal, we have recently signed up to a project run by Advance HE and Times Higher Education: *Aligning organisational strategy to Sustainable Development Goals*. The aim of the project is to promote a collaborative approach where universities work together to advance sustainability by sharing ideas to create their own individual action plans around the Times Higher Impact ranking. Dedicated teams across the university, including faculty and professional services, will work to advance the sustainability impact within education, research, and civic responsibility, thus aligning our organisational strategy with the Sustainable Development Goals (SDGs).

The project will begin with a face-to-face workshop for senior university leaders responsible for strategy formulation and leading implementation to develop an understanding of the Times Higher Impact Ranking data related to their respective universities.

Over the course of a few months, Cranfield teams will learn and share information with colleagues from other universities in a series of workshops and webinars. They will use the Strategic Enhancement Model, a structured programme development model, to: examine how to embed SDGs in the curriculum; enhance research culture and performance; and enhance sense of place and role in the community. Teams will reflect on their own institutional data, provided by Times Higher, and identify internal examples of best practice. This will enable them to prepare their individual action plans, supported by Advance HE.

A final workshop will provide senior leaders an opportunity to share their vision for sustainability via their new action plans. These are intentional actions to progress sustainability through education, research and community engagement, with a one-university mindset. Encouraging academics from management and technical schools to work together with professional services in this mission allows us to develop students to be future generators of sustainable value for business and society. We hope our holistic approach to embedding sustainability through our curriculum and our research culture will form the basis for increased interdisciplinary activities, which is the key to creating an inclusive and sustainable global economy.

The Sustainable Business Group

The School of Management is organised around 11 thought leadership groups (see Fig 2). The purpose of the Sustainable Business Group is to help put sustainability at the heart of organisations and into the hearts of their leaders. The group's mission is to ensure that current and future business leaders develop the knowledge and skills to embed sustainability into the core of a business so they can reduce risk, reduce cost, increase trust, and drive growth through the development of innovative products, services, and processes, whilst maintaining long term financial performance and creating value for society.



Fig 2: The School of Management thought leadership groups

They implement this mission by:

- Ensuring management students are well prepared to contribute value to business and society through sustainable management and practice.
- Working across management disciplines to mainstream sustainability into corporate strategy, finance, supply chain management, consumer engagement and entrepreneurship.
- Ensuring sustainability experts are well prepared to effectively use their technical skills to enhance the sustainability of industry sectors and their component organisations.
- Working alongside Cranfield's School of Water, Energy and Environment and School of Aerospace, Transport and Manufacturing, who are developing technical solutions to some of the world's most pressing environmental issues, in areas such as crop reliance, carbon capture, renewable energy and water stewardship, to support the implementation of leading technical solutions in business at scale.
- Convening a pan-university Sustainability Network which responds to sustainability-related challenges arising from business clients and funding bodies.

Graduate programmes

School of Management

- Management and Corporate Sustainability MSc
- Sustainability MSc
- Management and Entrepreneurship MSc
- Management MSc
- Full-Time Master of Business Administration
- Executive Master of Business Administration
- Business and Strategic Leadership MSc
- Management and Leadership MSc
- Management and Human Resource Management MSc
- Stackable MSc

School of Water, Energy and Environment

- Environmental Management in Business MSc
- Future Food Sustainability MSc

Executive Education

- Project Leadership Programme
- Business Growth Programme
- General Management Programme
- Breakthrough Leadership Programme
- Customised Programmes

Fig 3: The Sustainable Business Group teaches specialist sustainability modules/sessions on these programmes

The Sustainable Business Group runs two specialist sustainability programmes designed to develop leaders in technology and management who are equipped to tackle the real-world issues of today. The full-time Management and Corporate Sustainability MSc includes management modules alongside specialist sustainability modules delivered jointly with the School of Water, Energy and Environment. The part-time Sustainability MSc is jointly owned and run by the School of Management and the School of Water, Energy and Environment. Practice is deeply rooted through our education, and this is evident in the Sustainability MSc which can be accessed through the Sustainability Business Specialist Apprenticeship (master's level). This course attracts highly experienced professionals, allowing direct and immediate impact in the real world by implementing course knowledge, skills and behaviours immediately in their workplace. Read more on this course on page 56.

Sustainability literacy is the knowledge, skills and mindset that allow individuals to become deeply committed to building a sustainable future and assisting in making informed and effective decisions to this end. Several programmes across the School of Management, School of Water, Energy and Environment and the Centre for Executive Development, incorporate modules led by Sustainable Business Group faculty and associates. Adopting a pan-university approach allows us to promote sustainability literacy through the teaching of core sustainability modules across general management programmes such as Leading Corporate Sustainability (taught on the Management MSc and the Management and Leadership MSc), Leading Sustainable Business (taught on the Full-time MBA, Executive MBA Energy and MBA Defence) and Social Entrepreneurship (taught on the Management and Entrepreneurship MSc). The Leading Corporate Sustainability module is also taught in the School of Water Energy and Environment as part of the Environment and Management for Business MSc and Food Systems and Management MSc. Students on all these MSc programmes learn the practicalities of how organisations successfully embed sustainability into their core business purpose and strategy.

Another way we develop students' capabilities to be generators of sustainable value is through dialogue. We are developing a network of sustainability professionals creating positive impact within their organisations, where Cranfield serves as a hub to facilitate their ongoing knowledge development and sharing.

Caroline Harris

Finalist for Green Gown 2022 Sustainability Champion of the Year – Staff award

Caroline Harris is the Events Coordinator for the Sustainable Business Group and the Bettany Centre for Entrepreneurship. Her hard work in taking the Exploring Sustainable Futures game to the COP26 climate conference was recognised as she was a Finalist in the Green Gown Awards 2022, for the Sustainability Champion-Staff category. Caroline's success embodies our purpose as Cranfield School of Management to educate business leaders to be responsible change-agents.

“

“Putting sustainability into a digestible form can be a real challenge but from the first time I came across the game, I had an instant ambition to spread the knowledge and get more people playing it. Especially trying to find a path to provide access to those who either would not usually have, or afford, access to it. My belief in the potential impact it could have as a learning tool, in terms of provoking a systems-thinking approach and providing people with a wider view, gave me the confidence to work towards extending the game's reach beyond our courses, into other organisations and the wider community.

“Universities can sometimes be places where there is a clear separation between the contribution of academics and that of support services. I have been so fortunate to work within a team that celebrates our individuality and our value regardless of our job role. Cranfield University values include ambition and impact, and we are encouraged to look for opportunities to innovate, to challenge ourselves to do our best work and to inspire others. Pushing myself out of my comfort zone to take a project I believed in, to a global audience at COP26 was a truly ambitious undertaking and has amplified the impact the game can have.”

”



Green Funds and Seed Funds – financing for a sustainable future

Addressing climate change is an urgent challenge, but one that creates opportunities for growth, collaboration, and new partnerships. These partnerships create funds to unlock the potential for individuals to become generators of sustainable business.

To support innovators, individuals, communities and organisations in their efforts to save our planet, lift people out of poverty and advance health outcomes - in accordance with the SDGs - Cranfield has partnered with [Green Future Investments Ltd](#) to help drive climate positive innovation.

Four funds, totalling £3,000,000 over the next three years, have been set up as an 'innovation funnel' that seeks to accelerate projects at all Technology Readiness Levels (TRLs) for Cranfield University Students, Alumni or Cranfield's wider community. The funds offer a structured and scalable approach to developing sustainable businesses, catering for innovators at all levels – from early stage to more mature businesses.

These four funds are:

- **The Brian Meredith Net Zero Scholarship fund** is designed for students with a passion for the global net zero goal to help them launch their career journey in sustainability.
- **The Future Frontiers Fund** helps innovators with 'might work' concepts from the lowest Technology Readiness Levels (TRLs) and gives them the opportunity for early-stage ideas to be validated or proven unworkable.
- **The Technology Accelerator Fund** is designed to move more established ideas forward, taking them from benchtop idea to prototype product or scale-up. Recipients benefit from technical and commercial expertise, labs and spaces as they build and test their concepts, drawing upon additional skills from wider academic teams with experience in research and development.
- **The Green Future Entrepreneurship Fund**, which has three components:
 - A seed fund designed to support the next generation of businesses with a focus on green-related ideas; it provides educational opportunities to students by partnering them with businesses to support their development.
 - A Ready for Net Zero Growth Programme that supports SMEs with a turnover of less than £5m to develop a strong growth plan for the next 1-3 years combined with a carbon plan and a pledge to achieve Net Zero.
 - Student entrepreneurship prizes, encouraging students to work on SDG related business ideas, with these ideas pitched to a panel, thereby planting the seed to become future environmental ambassadors.

What makes these Green Funds so relevant is the notion of providing nuanced solutions that address businesses at different stages of their development to ensure that the support offered is targeted in ways that produce real results.

Separately, the [Cranfield University Seed Fund](#) launched by the Bettany Centre for Entrepreneurship in 2022, uses philanthropic gifts from alumni donors to create a "virtuous circle of giving" providing early investment for promising business owners who have a link to the university. The convertible loans model of investment will help ensure the longevity of the Seed Fund. Alongside continuing gifts from alumni, the capital returns will mean that it becomes self-supporting and creates a continuous giving loop from one generation of alumni and investors to the next. Among the first companies to benefit is FinCrime Dynamics whose innovative model of Financial Crime Vaccines helps institutions test and improve their crime controls.

Our purpose is underpinned by our values. In the next chapter, we focus on our progress in embedding these values into our curriculum.



Students enjoying our green spaces on campus.

Principle 2 | Values

We incorporate into our academic activities and curricula the values of global social responsibility as portrayed in international initiatives such as the United Nations Global Compact.

Our purpose is underpinned by our shared values which guide our day-to-day decisions and actions. In 2020, we refined and restated the University’s corporate values after an extensive consultation with over 800 members of staff. The Cranfield values reflect the values of global social responsibility, notably our value to create impact and make the world a better place.

In our most recent Staff Pulse Survey (December 2022 to January 2023), 86% of staff felt our values were being lived day-to-day some or most of the time. This has been achieved by toolkits which help staff to translate these values into day-to-day actions.

In our university-wide initiative, as part of signing up to the [SDG Accord](#), there has been an effort to support the Sustainable Development Goals through our research and teaching. Over the last two years, we have continued to widen the reach of our specialist sustainability modules by integrating them into our general management courses. We have also increased the depth of our specialist sustainability teaching by introducing new modules including Green and Sustainable Finance and Energy and Entrepreneurship.

The Sustainable Business Group runs two interdisciplinary master’s level programmes that have been designed and run with the School of Water, Energy and Environment. The content created for these specialist courses informs the sustainability modules on more general management programmes. This has been catalysed both by student demand and a recognition from course directors of the importance of embedding global social responsibility within management education. We will continue to bring sustainability knowledge to a wider student base by integrating content and expertise from specialist modules to teaching across management disciplines.

Our triple-accredited full-time MBA programme has embedded a deep self-awareness of personal purpose and values into the teaching led by Professor Richard Kwiatkowski: **“Good leadership starts with the person’s self-awareness about their strengths and building on difference – an unashamedly psychological approach based on sound theory and empirical evidence applied practically.”**

Driven by industry demand, we are redesigning the Retail and Digital Banking MSc to become the Sustainable and Digital Banking MSc. This unique course is also available via apprenticeship route and therefore delivered directly to professionals.

Goals:

2a:

Bring sustainability knowledge to a wider student base by translating content from specialist sustainability modules to shorter sessions to be used in teaching across management disciplines (e.g. biodiversity and business).

2b:

Assess and select framework(s) for evaluating our progress in embedding sustainability and responsible management across our curricula (e.g. UN Global Compact Principles).

2c:

Review potential approaches for measuring our application of the PRME principles in teaching and learning (e.g. student feedback, course reviews).

2d:

Articulate sustainable and responsible management practice more explicitly in the School of Management’s vision and 2030 strategy.

How our existing education supports the Sustainable Development Goals

Having signed the Sustainable Development Goals (SDG) Accord in 2022, we have embarked on a university-wide exercise to map existing courses and modules against UN SDG goals to show where we are strong and where there is room for growth. We will deepen this by committing to a modular level map that highlights the proportion of SDG-related content on every course. To raise awareness of this and encourage others to join in this process, we have created a webpage to highlight our progress so far: www.cranfield.ac.uk/sustainable-development-goals

Our goal for the next reporting period is to assess and select the best framework(s) for evaluating our progress in embedding sustainability and responsible management across our curricula (e.g. UN Global Compact Principles).



While we impart learning and conduct research relating to all SDGs over our programmes taught in the School of Management, we contribute most significantly to these four goals.



Fig 4: Cranfield SOM’s commitment to SDGs

Programmes built with purpose and responsible values

Management and Corporate Sustainability MSc

To ensure that more students recognise the role of sustainability thinking in businesses of the future, the Sustainable Business Group runs a specialist interdisciplinary [Management and Corporate Sustainability MSc](#). Drawing many of its core management modules from the Management MSc programme, students on this course also take five additional specialist sustainability modules. The 'Applied Science and Technology for Environmental Sustainability' module is taught by environmental experts from Cranfield's School of Water, Energy and Environment, and provides the specialist skills needed to assess and manage environmental impacts from operations to the supply chain. The 'Creating Sustainable Organisations' module provides practical leadership skills in driving sustainable business, from strategic issues such as the circular economy to topics such as sustainable innovation, reporting and employee engagement. This module also offers students the opportunity to undertake a practical sustainable business consultancy project. The thesis is also a practical exercise, albeit informed by up-to-date theory. Previous thesis projects have involved working on sustainability-related projects with company sponsors such as Heineken, Unilever and easyJet.

"I was a broadcast journalist with a focus on impact and social change. This course gives you practical, real-life experience on how to navigate being a manager, with a strong focus on impact leadership and how you can do good for society. As a journalist, I also have a foundation called Inspired Arise where I mentor young ones with a focus on menstrual hygiene. Being at Cranfield has afforded me the opportunity to learn from a large network of researchers, students and businesses, so I've been able to interact with people from all walks of life, which has been really eye-opening. After my course, I hope to work with businesses and NGOs to influence, improve and help create sustainable organisations. The exciting bit about the Management and Corporate Sustainability MSc is its focus on value addition; it focuses on people and the planet, as well as focusing on profits. So, if you want to add value, not just to yourself but to society, you should give this course a go, you won't regret it."

Wendy Atswei Laryea, Chevening Scholar, Management and Corporate Sustainability MSc, 2021-2022



"My passion for sustainability came from quite a young age, but I wasn't sure how it would work as a career path, so I went to university and studied business management at undergraduate level. There were some sustainability modules, but it looked at the problems rather than solutions. I saw the opportunity to enrol on this course to really dig deeper into how you can embed sustainability into management practice. The module that sticks out to me is the Creating Sustainable Organisations module by Professor David Grayson. He brought in people to share their experiences from a whole range of corporation styles, such as B-Corps and Unilever. For me, heading into the workplace, I could see how bigger organisations can engage with sustainability at the core culture level. It was really useful to work on a live project within an organisation. I'd gone straight from sixth form to university and then into a master's, so to have that live business experience with feedback really helped me grow into a more responsible individual."

Tom Lay, Strategic Planner, Network Rail, Management and Corporate Sustainability MSc, 2020-2021

Read more of Tom's experience in 'Partnerships' on page 58.

The Transformation MBA: the journey from me to we

Cranfield School of Management, founded in 1965, was one of the very first institutions in the UK to offer a Master of Business Administration (MBA). It was designed from the start, not as a theoretical academic ivory tower learning experience, but as a meeting place for practitioners and educators, people who wanted to transform the world of work. This thread runs through to the present day in our institutional mission of "transforming the practice of management".

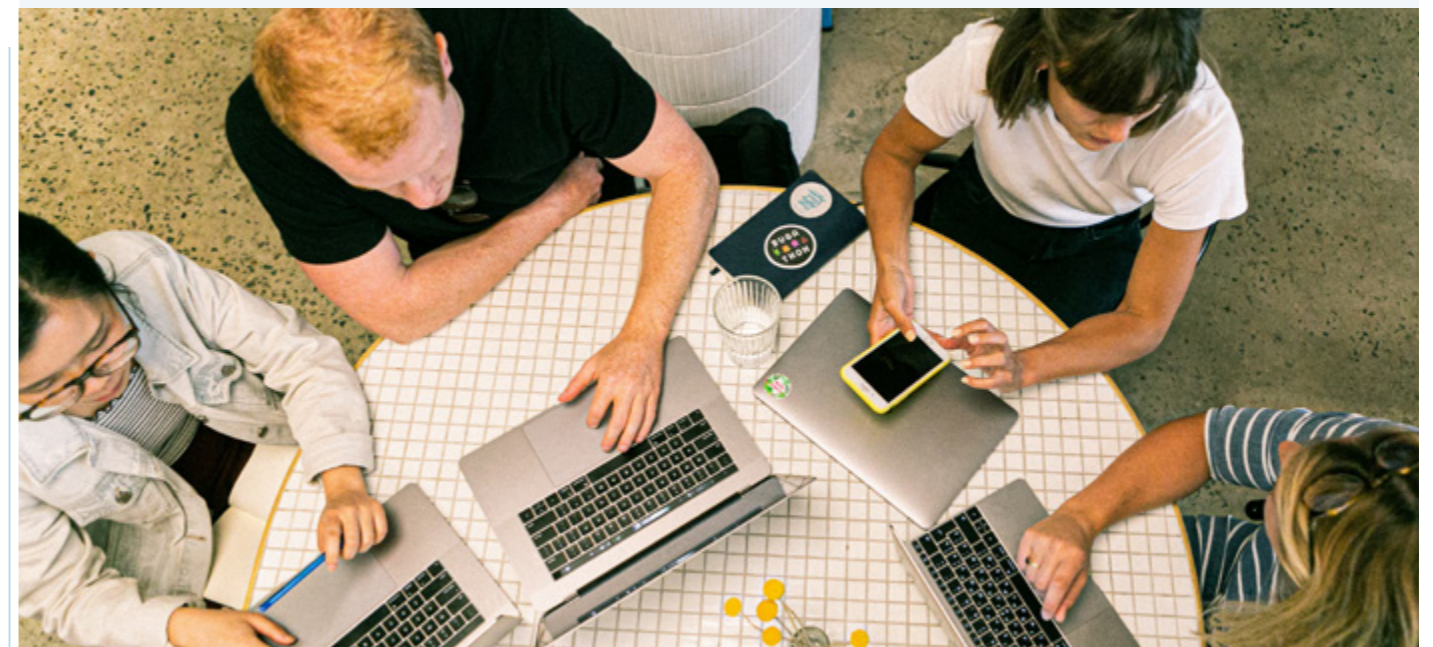
This mission has underpinned our [triple-accredited MBA programmes](#) for 50 years. We recognise both the need to engage closely with the real world of business and we passionately believe that people make the difference. We believe this can be achieved by continuing to interact with business on a daily basis and by focusing on the power of people.

At Cranfield, it's not enough to talk about responsible leadership – it has to be lived. As a school of management (rather than a school of business) we focus on people: what we do but also who we are. This requires a continual, creative process of questioning and discovery; it is a rigorous personal journey during which students explore their values, attitudes, beliefs and behaviours to enhance self-understanding, ingrain real emotional intelligence, and reimagine their moral and ethical compass.

We call this the Transformation MBA whereby "responsibility" is not just an intellectual concept taught as a set of principles but an empirical reality where students in effect become their own ongoing case-study for the duration of the programme. From Leadership Week, where students are challenged through sustained peer-coaching designed to build empathy and frame values, through to the final Leadership in Action/Leadership with Impact modules, where participants reflect on - and act out - what it means to be a responsible leader in the real world.

This focus on authentic leadership is built on sound evidence-based, research-led psychological principles developed over many years by Professor Richard Kwiatkowski, who has served as Chair of the Ethics Committee of the British Psychological Society, is currently a panel member on the HCPC, (the official body that regulates health and care professions in the UK), and is also Chair of the Accreditation Appeals Panel for the World Association of Business Coaches.

As they test hypotheses and apply principles, discover insights and add method, weigh diverse career paths and explore choices (Executive, Entrepreneurial or Independent), students recognise that introspection must be translated into action if they are to influence and shape the world around them. The goal is the virtuous circle of knowing oneself to better understand others, to be able to lead organisations responsibly and, consequently, produce outcomes that are sustainable for the world.



From waste to value – unlocking personal transformation to transform society

Lolade Oresanwo – co-founder of WestAfricaENRG, a business that is transforming the waste management industry.

Before coming to Cranfield in 2010, Lolade worked in commercial banking, providing financing and business development advice to SMEs and large corporates in the oil, gas and retail sectors in Nigeria. She started the MBA with the intention of getting a qualification to get a better paying job, but through the course she found her thinking process expand about what she could achieve.

“Before the MBA, I would class myself as a very shy, introverted person. During the MBA, we were thrown into several scenarios where I had no choice but to come out of my shell. It was from the MBA that I made the decision to start my own business and be a thought leader in my chosen field.”

In 2012, waste management in West Africa was a sector that was ripe for disruption by a new entrant. Lolade took inspiration from other market disruptors such as Google and YouTube. She saw that wider societal benefits would flow from changing the face of waste collection, sorting, recycling and disposal.

“During the MBA, I had the opportunity to review and discuss several case studies of how senior managers and business owners were able to navigate the highs and lows of their businesses and operations. Without the MBA I would not have had the opportunity to have a clear understanding of the challenges that individuals may face. It helped me identify my strengths and weaknesses, and how I could use those to navigate any given situation.”

Lolade Oresanwo, Chief Operating Officer of WestAfricaENRG, Full-Time MBA, 2011



The business environment in Nigeria is volatile, even more so when it faced the Covid-19 pandemic. The company's response was to widen the product offering and spread the customer base. The journey has been a rollercoaster and she has encountered numerous challenges in an industry that is traditionally very male-dominated. Yet, with the skills of resilience she learnt in the MBA, she is proud of what she has helped create. For over eight years, treating waste in a sustainable manner, creating long term jobs, empowering women and eradicating poverty through sustainable waste management and renewable energy. The business now provides sustainable employment for over 3000 people.

Practice with purpose: people, planet, profit

[Dr Leila Alinaghian](#) (Associate Professor of Business Relationships and Impact and Director of the Full-time MBA) epitomises Cranfield's commitment to responsible business education in action, both through her teaching and her research in the field of social procurement. Leila's advocacy has seen her closely involved with [Social Enterprise UK](#), the national body for social enterprise businesses with a social or environmental mission, and in particular their Buy Social Corporate Challenge, which aims to recruit high-profile businesses to collectively spend £1 billion with social enterprises.

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“I've always had a passion for social impact and advocacy. I love the idea of making the world a fairer and more compassionate place and, at the personal level, of changing lives. In our communities and globally, we are surrounded by social problems such as mental health, inequality, homelessness, reoffending, and mass migration – you hear the sad stories in the news every day.

“Businesses have begun to take a lead role in addressing these complex, multi-layered global social challenges, and are increasingly trying to bring about a positive impact on the planet and the communities in which they are operating. As part of this, they are starting to engage in new practices, one of which is social procurement. The practice involves corporates buying from social enterprises. While these have a social mission at their heart, such as to eradicate poverty, or to support people who have experienced homelessness to be able to move forward in their life, they use business to solve their chosen societal challenge. They are businesses that apply market solutions to social problems.

“Social impact is one of the remaining competitive advantages that's available to businesses – and in many ways it's the ultimate competitive advantage.”

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Widening and deepening our sustainability teaching

Since 2020, the Leading Sustainable Business module has been a core compulsory module on the full-time MBA and Executive MBA (an elective from 2018). New modules of note are 'Green and Sustainable Finance' on the Management and Corporate Sustainability MSc and 'Energy and Entrepreneurship' on the Renewable Energy MSc. The positive student feedback from these modules shows a growing appetite for responsible leadership teaching from students both from technical and management schools. New management-based modules taught on the Sustainability MSc include 'Economics for Sustainability', 'Sustainable and Circular Supply Chains', 'Personal Leadership for Sustainability' and 'Sustainability in Practice.'

Green and Sustainable Finance

Introduced to the Management and Corporate Sustainability MSc in 2021, the Green and Sustainable Finance module aims to educate future leaders in the role finance can and must play in the transition to a more sustainable economy. The purpose is to equip these leaders with the analytical knowledge and skills necessary to create sustainable financial solutions, in the context of the wider national and international regulatory and enabling frameworks.

The module is rooted in industry and brings in a diversity of perspectives via guest speakers. Students collaborate over a Sustainable Investing case and then present their recommendation to industry experts. This gives them practical insight into the challenges faced by current leaders, as well as deepening understanding of industry and regulatory trends influencing socially responsible organisations.

The module aims to develop conscious global citizenship through cultivating an analytical and critical-thinking mindset. Every student learns to critically reflect on the existing financial system, the ethics of business and finance in society and the potential for positive social and environmental impact.

"Speakers come in to talk about their work and students ask incredibly intelligent spot-on questions that really get to the heart of the problem. To me, that just shows they totally understand what the real issues are, so there are just lovely moments when you can see that the experts are almost taken aback with the accuracy of the point." Dr Emmeline Cooper, module leader

Students have commented on the impact of this module: **"I came to class with zero knowledge of green finance and fear of not understanding finance or having interest in it, but I left with an understanding of how it works, where it can be applied and a huge interest in it. I did not want the lessons to end."**

Creating responsible leaders in renewable energy

Our role as business educators extends beyond the School of Management and we ensure that we collaborate with colleagues across other schools. An example of this is the Energy Entrepreneurship module on the Renewable Energy MSc, designed specifically to equip technical students with the managerial skills needed to launch and grow new ventures.

As module leader, Dr Orsolya Ihasz puts it: **"This is purpose-led education through a more holistic approach – a mindset shift, thinking collaboratively, taking one's ego out of the debate, recognising that value is multi-faceted. The way you create the profit that helps the company to grow, to responsibly add back to society, to employ more people and value them, to look after the environment... requires a change of attitude, a different awareness – not about maximising but optimising all the resources you have - resources of people, profit, planet: this is responsible innovation."**

Over a period of two weeks, students are faced with challenges and work in teams to solve problems, covering everything from entrepreneurial risk to intellectual property rights and trust law, people management, business planning and finance (including sessions on how to pitch to investors). In the words of Malvika Urkolil, an engineer by background: **"My team and I have gone from being engineers tapping into our unknown entrepreneurial potential to start up co-founders with ambitions to expand globally."**

The next chapter outlines the methods we employ to bring our purpose and values to life through our teaching and learning.

Principle 3 | Method

We will create educational frameworks, materials, processes and environments that enable effective learning experiences for responsible leadership.

We have developed new approaches to teaching which are making lifelong learning more inclusive, accessible, and with a lower carbon footprint. This has been facilitated by enhancing our digital and online capabilities through our Digital Management Education group and Grenville Turner Broadcast and Record studios, as well as by designing courses which are accessible remotely (e.g. Sustainability MSc) and/or in bite-sized chunks which can be accessed at learners' own pace (e.g. Global Online Stackable Programme). Underpinning this innovation in teaching practice is faculty training and development which supports academics in employing creative and innovative tools. This includes an in-house programme for all faculty to complete a Postgraduate Certificate in Academic Practice and opportunities for staff to enrol on Cranfield Master's Level Apprenticeship programmes (see page 54-55).

We recognise that education for sustainability requires a transformation not only of thinking, but also of feeling and action. The Advance HE/QAA Guidance on Education for Sustainable Development offers clear guidance on the type of teaching practices that facilitate this type of transformative learning including play-based learning, collaborative learning, enquiry-based learning, learning through storytelling and problem-based learning. In this chapter, we share examples of learning experiences which adopt these approaches to inform and inspire responsible management practice, both in the classroom and beyond.

We are also finding better ways to evaluate the impact of our sustainable education, for example by using participative methods to evaluate the impact of playing the Exploring Sustainable Futures game on individual participants and the organisations they work for. The Doughty Centre Legacy PhD Scholarship is funding doctoral research which evaluates the impact that education for sustainability has on individuals and their organisations, with a focus on our part-time Sustainability MSc which attracts executives who aim to embed sustainability into their business practice. The research will involve tracking and evaluating the changes that executive students bring about in their organisations and wider systems through applying their learning and developing their personal knowledge and competencies.

Goals:

3a:

Increase the visibility of History of Corporate Social Responsibility tool by making it open access through our webpage.

3b:

Increase the reach and impact of the Exploring Sustainable Futures game including through partnerships with other Higher Education Institutes. Work with academics from other disciplines to create game versions for more industry sectors (e.g. aviation, food).

3c:

Use innovative research methods to evaluate the impact of our sustainability education on students and their organisations.

Using technology to enhance engagement

Within the wider university

Cranfield Broadcast and Record, with its own customised state-of-the-art studio, can host professional broadcast events, high quality recordings and a wide-range of live interactive sessions. The School of Management has access to this unique facility which is used to enhance learning in several contexts: from student-run panel sessions to remote-learning apprenticeships, and customised executive education programmes. These live, highly interactive teaching and learning solutions enable Cranfield to place its expertise right into the heart of client organisations and increase the immediate impact of our responsible leadership teaching.

Our Digital Management Education Group

In line with our university education strategy to develop digital learning capabilities that deliver our educational vision, we have invested in our Digital Management Education Group. This team was responsible for our rapid adoption of online teaching in response to the Covid-19 pandemic and has since continued to grow our digital education capabilities utilising innovative digital platforms, gamification expertise within the team and providing training and support for our educators. One of the benefits of this team is that their backgrounds are in either executive education or developing programmes and content specifically for senior leaders and managers.



Joseph Prashant Ravala MBA elevator pitch recording in Cranfield Broadcast and Record Studios.

Graham Bell
Director of Digital Education for the School of Management

Graham leads the School of Management Digital Education strategy and with his team has been responsible for the digital transformation taking place in the School to help faculty create engaging digital teaching content including gamification.

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“Our team consists of highly skilled experts in technology and education. Our remit is to focus on the needs of senior leaders and managers, in terms of their lifelong education. We support core strategic projects that take place within the School of Management, which includes their mission to educate responsible managers and their commitment to PRME.

“Engagement is at the heart of what we do: we explore how to increase learning impact through the use of the digital tools we have available to us. Part of what makes this team special is that a number of us have studied programmes at Cranfield giving us an intimate understanding of the values and ambitions of the university.”

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Global Online Stackable Programmes

Our newest offering of digitally-enabled, accessible, flexible business and management learning is the Global Online Stackable Programmes. Learning modules are self-paced, online modular units which can build towards formal qualifications. Our passion for active and engaged learning runs throughout the core of our Global Online Stackable Programmes, equipping learners with the technical and theoretical knowledge to effect change and build self-awareness to lead with confidence.



Fig 6: Current modules available on the Global Online Stackable Programme

The programme offers mid-career professionals the opportunity to refresh or extend their knowledge, adapt to new challenges and develop a range of new competencies- many of them directly related to sustainability, that will help them in their career. The graphic above shows the modules currently available. Specialist Ethics and Sustainable Business modules will be added to the portfolio later this year.

Learning experiences and tools

Translating theory into practical knowledge requires an active and experiential approach to learning. Across the school, we develop and use exciting learning experiences that promote sustainable and responsible leadership.

Wheels within wheels: understanding the circular economy

On the Supply Chain Management MSc, students learn directly by doing. Among the tools employed is an innovative web-based business simulation game called 'The Blue Connection' created by game-based learning provider Inchange. In response to the increased demand for companies to transform how they operate, fictional e-bike manufacturer, Blue Connection, has hired a new management team to transform the company's linear value chain to a circular one. Team members are confronted with diverse real-life dilemmas, where cross-functional understanding and collaboration are the key to success, as they work together to transition their business away from 'take-make-dispose' linear production towards a circular business model.

From waste to value: the Sustainable Value Analysis Tool

The Sustainable Value Analysis Tool (SVAT) was developed by Dr Miyang Yang as part of her PhD thesis at the University of Cambridge (Yang, Vladimirova, Evans, 2017). She joined Cranfield University as a Reader in Sustainability in August 2021, bringing the SVAT to her teaching on our MBA and EMBA programmes. The tool was developed to help companies uncover the hidden value that goes uncaptured across the whole product life cycle. By using the tool, companies can identify new opportunities for sustainable value creation. The purpose of the tool is to shift perspective around what 'waste' is, and instead see the potential 'value' that is not being utilised. The tool is composed of eight steps that guide businesses through considering all angles and stages of where there is 'value uncaptured'. By making these opportunities visible, it allows businesses to have both a competitive advantage and increase their social and environmental benefits.

At Cranfield, this tool has been productive in engaging students to think both responsibly and creatively about sustainable solutions to real industry problems, particularly when considering how to adopt a circular business model.

"Personally, I had a significant and accelerated mindset change with very deep insight into the circular economy and its significant role in shaping future sustainable businesses. Through the Cranfield lens, it helped me to see fresh sustainable business opportunities whilst doing good to mankind and the environment." – Leading Sustainable Business module 2022/23

Beyond teaching, the tool has been translated into three languages and used for research, consultancy and business training. Dr Yang intends to develop the tool further and create an impact case study that analyses the impact of the tool's use over time. This promotes both responsible management education through its symbiotic development of business theory (expanding the traditional concept of a business model to include 'value uncaptured') and business practice as it is understood and progressed through application.

Bringing bribery to light: an experiential approach

As part of a series around managing risk responsibly on the Leadership in Action module on the MBA, students work with the Chairman of a high tech environmental and civil protection technology business. Using a "detective story" format which combines storytelling, role play and discussion, students experience the different stages - from discovery to management to resolution - of a serious (and real) bribery crisis. At every stage they are challenged to reflect not just on the threat to the firm and its commercial situation, but also on the environmental, political, social and economic consequences to the global community of countries and people served by the business.

History of corporate sustainability through a story of crisis

PhD research student Spondon Bhagowati and Emeritus Professor David Grayson developed an interactive tool to bring to life the events that have shaped today's corporate sustainability perspectives and policies.

Their study examined key industrial disasters, scandals, and controversies that influenced corporate sustainability policies around the world over the years. The findings are startling, emphasising the significant influence of infamous corporate incidents, from the Bhopal Gas tragedy in 1984, where thousands perished because of a gas leak from Union Carbide's pesticide factory, to more recent malpractices by large multinational companies that has resulted in the ruin of local ecosystems, intimidation of indigenous communities, and much more.

The tool allows students to conclude for themselves, the case for businesses to incorporate environmental and social aspects into their decision-making process. This guarantees not only societal and environmental welfare, but also the companies' social license to operate, its economic success, and business continuity in the long run, thus contributing to a healthier and more sustainable world.

Philosophy cards – a novel and fun way to develop critical thinking for educators

Enabling effective learning experiences extends to educators themselves. Created by Cranfield's Dr Toby Thompson to introduce philosophical thinking to the community of Cranfield University educators, this deck of Top Trump™ inspired philosophy cards is intended to be used in a workshop setting as part of the mandatory Postgraduate Certificate in Academic Practice. The cards comprise 60 famous philosophers drawn from the world over, representing a form of cosmopolitanism corresponding to the international diversity of Cranfield's students and faculty. The issues raised using the cards, in particular the need to consider alien opinions and to critically examine implicit ideologies through framing radically alternative ways of thinking, help early career academics reflect on their aims, responsibilities, behaviours and roles as professional educators.

Exploring Sustainable Futures game

The aim of the game

The Exploring Sustainable Futures game is a role-playing learning experience designed to engage participants in system-thinking with a long-term perspective and to explore alternative pathways to a sustainable future by 2050. During the game, players representing established businesses interact with players representing entrepreneurs, policy makers, civil society organisations and the general public (citizens) as they all react to changes in economy, technology, and society. The 'winners' are judged not only by the number of resources they have accumulated, but also by whether they have achieved their purpose, and participants reflect on the nature of the world they have collectively created through their decisions. The game has been recognised by the Financial Times as being an example of best practice in teaching about sustainability and was showcased at the COP26 climate conference.

Building sustainability competencies through play

As sustainability faculty and practitioners, the game creators recognised that achieving a sustainable future involves rethinking how we live, work, and do business. We knew from existing sustainability competency frameworks, and from our own experience, that this involves having a vision of what a just and sustainable future could look like, seeing business as part of an interconnected system, taking bold decisions, and collaborating with others. However, we also recognised that these competencies tend to take time and experience to develop, and that the urgency of the social and environmental problems we face does not allow for the luxury of time. The Sustainable Business Group therefore developed this learning experience to accelerate learning through an experiential, transformational journey to the future, offering participants the opportunity to develop learning from their journey that they can bring back to influence their thinking and actions in the present.

The Sustainable Futures game is an example of a learning intervention which is designed to bring about transformative learning. It is played in the context of future scenarios which help participants visualise and experience alternative future visions of sustainable lifestyles in Europe by 2050. It involves discourse between individuals who must make strategic decisions about the actions they take in response to the unfolding future, guided by their own articulation of their 'adopted' organisations' purpose and values. Being successful in the game requires collaboration between diverse societal actors who must question their own assumptions and build empathy with other societal groups to find opportunities to create shared value. The device of 'time-travel', and compelling audio-visual stimuli, create a learning experience that has a powerful emotional dimension - known to be pivotal in transformation. Crucially, there are many opportunities for reflection, both individually and in groups, between phases of game play and at the end of the experience, which allow participants to assimilate the new ways of thinking and knowing that they have explored.

The fact that the experience is framed as a serious game, and participants are engaging in role-play representing organisations that are not their own (they may be fictitious organisations resembling their own), provides a safe space to question, challenge and experiment. Regardless of the outcomes of the game, participants know (and are reminded during the game play) that this is only a game, that the future has not yet played out, and that they can use their learning to inform their current thinking, feeling and action.

Evaluating impacts on players

Pilot research has found that playing the game increases participants' understanding of the systemic relationship between business and society and how change can happen collectively. It increases understanding of what sustainability means in a business context, and the implications for how businesses think about and conduct relationships with wider societal actors. There was increased understanding of how, when and why organisations need to collaborate, and the enabling conditions for this. Although participants did gain a better understanding of the character traits required to lead for sustainability, it was not clear whether shifts in leadership practice were demonstrated or learnt during the game, or whether participants experienced transformation in their perceptions, beliefs and values.

Since the game offers a learning experience in which both the experience and the learning are co-created by participants, we are now designing more participative evaluation approaches. There are plans to develop the game further involving a more dynamic approach to evaluation, written reflections and drawings both before and after playing, and the addition of focus groups to analyse the learning experience in greater depth.



The original board game format is played over three hours and focuses on self-reflection.

Development and dissemination of Exploring Sustainable Futures game

Successive formats of the game have been played with over 2,000 individuals from 2018 to date. Initially, the game was used exclusively at Cranfield as part of sustainable business modules delivered on postgraduate programmes including the Management MSc and MBA. Since 2021, the learning experience has been extended to over 600 non-student participants including sustainability practitioners, business executives and other academics (See Table). These deliveries have helped inform the continuous development and improvement of the game, which is now being offered more widely to external organisations to amplify the impact of the learning experience in business and society.

Summary of sessions to non-student audiences since November 2021

November 2021	March 2022	June 2022	July 2022	September 2022	September 2022	October 2022	December 2022
Event: COP26. Audience: COP26 delegates; general public. Key developments: Production of multi-media content; large freestanding scoreboard.	Event: Edie Sustainable Leadership conference. Audience: Sustainability practitioners. Key developments: Testing with industry.	Event: Simmons and Simmons LLP. Audience: Lawyers. Key developments: Trialling a short duration (60 mins) format.	Event: Warwick University. Audience: Academics. Key developments: Testing with educators in another institution.	Event: BAM Conference. Audience: Academics. Key developments: First pilot of core game. Testing with educators.	Event: Kier Construction Ltd. Audience: Middle management. Key developments: Game as part of full day sustainability workshop.	Event: Lucion Group Ltd. Audience: Middle management. Key developments: Test of digital scoreboard.	Event: Cranfield University. Audience: Academics and interested organisations. Key developments: Integrated digital platform for videos, voting, scoring.



The Exploring Sustainable Futures workshop took place on 1 November 2021 at COP26 in Glasgow.

“I have loved using my gamification skills and experience to contribute towards this immersive game experience.

Technology plays such an important role in deepening students’ understanding of complicated theories, and this active learning experience helps move theory into practice in a meaningful way.”

Zoe Lynch, Content Designer,
Digital Management Education Group



6 December 2022 Game Showcase at the Digital Aviation Research and Technology Centre (DARTeC) for Staff, Management and Corporate Sustainability MSc students and invited guests.



Game session with faculty, staff and interested organisations, December 2022.

Game player testimonials



EXPLORING SUSTAINABLE FUTURES

PRESENTED BY CRANFIELD UNIVERSITY

www.cranfield.shorthandstories.com/sustainablegame

“The game reinforced that no one institutional stakeholder wields power to the point that others can’t bring about change, and that often grassroots initiatives and the public voice can be extremely powerful, especially where effective collaborations and partnerships are formed.”

MSc Sustainability student, residential game session, 2022

“The game was a truly immersive experience. It was thought-provoking and insightful and absolutely helped everyone who participated understand the scale of the challenges we face. Importantly, it helped us all to consider what we could do within the community of Lucion Group to reduce our dependency on carbon. The message was clear: we must take action to hit and exceed carbon reduction targets by 2050 in order to safeguard our planet for the generations that follow.”

Jeremy Meredith, Lucion Services Managing Director, 2022

“In terms of social changes relating to immigration and demographic change, I understood these challenges beforehand, but the game has made me think about what might happen over the long-term. Is the advancement of AI a good thing when considering ageing populations? Could we be looking at consistent, long-term recessions as the effects of climate change take hold?”

MSc Management and Corporate Sustainability student, course game session, 2022

“Playing the Sustainability Futures game was an emotional and deeply thought provoking experience.”

MSc Sustainability student, residential game session, 2022



Gemma Adams Experiential Learning Lead at Cranfield School of Management

Alongside her role at Cranfield, Gemma is a freelance sustainability professional working with organisations across business, the public sector, healthcare, philanthropy, civil society, and academia. She supports sustainability leaders and regenerative practitioners to create impact strategies that are more powerful in practice, by engaging our whole intelligence in their design.

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“Personal practices and values are often overlooked in traditional management education, but logically, a larger scale of change will only happen if individuals can learn to change how they’re thinking, engaging, and participating. This deep self-awareness of personal values is a very important locus for action, particularly given that the people who come to Cranfield want high profile, high value-adding roles in organisations across all parts of the economy and around the world.

The magic of what we do in offering a semi-structured experiential learning journey, which is not scripted or prescribed, is that learners have a lot of agency. It becomes a very creative process in which the outcomes and the learning are quite uncertain. We are building their human capacity and the ability to hold the difficulties we are facing in the world to face them and enabling conscious responses to them through their roles.

I feel proud that we have created an experience that seeks to be holistic. Our early understanding of the impacts of the game are also in line with what employers are increasingly asking for. Cranfield has seen the potential for game-based experiential learning, as reflected by my recent employment as Experiential Learning Lead. This university has always been very connected with real world practice and has always had close partnerships with industry. Cranfield is looking at applicability of skills and is narrowing the gap between the taught curriculum, and the skills the real world needs.”

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Cranfield MSc Sustainability student playing the Exploring Sustainable Futures game.

Student competitions

Creating an environment that fosters sustainable innovation and entrepreneurship is a key component of educating future business leaders. The Bettany Centre for Entrepreneurship runs a comprehensive variety of competitions, challenges and events aimed at students, alumni and SME owners to build their entrepreneurial skill.

The Cranfield-Colworth Innovation Challenge

The Cranfield-Colworth Innovation Challenge, run jointly by The Bettany Centre and Cranfield's Research and Innovation Office, is an annual Dragon's Den/Shark Tank competition in which students develop solutions to real-life challenges, set by Unilever and ekaterra (owner of well-known brands such as PG Tips, Pukka and Lipton). The theme for 2023 was 'innovation to tackle climate change, reduce waste and increase efficiency in the food and drink sector'. The School of Management works closely with the technical schools to make this a truly cross-disciplinary and practical learning experience.

- Teams must consist of students from different disciplines, with at least one student from a technical school and one from the School of Management.
- The participating teams are mentored, throughout the five-week period, by experts from Cranfield AND the sponsoring organisation, with a special full training day with the Bettany Centre (on entrepreneurship, value propositions, commercial routes to market) and the technical schools (e.g. agrifood, circular economy) to help shape and develop the proposals.
- On the final day each team pitches to senior Unilever, ekaterra, and Cranfield personnel – the winning team receives a £5,000 prize, with two runners-up prizes of £1,000 each.
- All shortlisted students have the opportunity to put in a proposal for a summer thesis project with Unilever or ekaterra.

The competition is just the start of a collaborative journey between the companies, the university and students with the best proposals being taken forward to further research, funding and, potentially, implementation and rollout.



Cranfield-Colworth Innovation Challenge 2023 winners- Team Mindit

Over the past three years more than 500 students in more than 100 teams have participated in this competition and winning proposals have been fast-tracked to the next stage of product development. The 2022 winning team B.E.A.T proposed ways of reducing the carbon footprint of ice cream sales in developing and emerging countries, while benefitting local communities; the 2023 winners, Mindit, put forward a plan to reduce the impact of hail on tea estates.

Thomas Drescher, 2023 Winning Team Mindit, current student of PgCert Design Thinking, commented: **"We are absolutely over the moon after winning the challenge! The competition was intense with strong runners-up. We put in all our skills and passion to create the comprehensive approach we presented in the pitch. The long working hours united our team while promoting our skills in research, creative thinking and presenting. We are overwhelmed by the support we received from key people from both institutions throughout the competition. The challenge was a great opportunity for networking and, beyond that, to make friends."**

Stephanie Hussels, Director of the Bettany Centre for Entrepreneurship: **"This innovation challenge brings together everything that Cranfield University is about. It encourages teamwork across many disciplines, develops entrepreneurial skills, and by working with multinational companies, our students can apply their learning hands-on by solving real-world challenges."**

Dr Helen Saini, Global Sustainable Agriculture Lead at Lipton Teas and Infusions: **"Hail damage as a result of climate change is an increasing problem in certain regions, impacting large businesses like ours and small farmer livelihoods. It was great to put this important challenge to an interdisciplinary team of students who were able to think creatively, and I was impressed with the level of business acumen, innovation and passion displayed by all teams."**

Hult Prize: Solving the planet's most pressing issues through social entrepreneurship

We took part in the Hult Prize Competition, hosted at Cranfield for the first time this year. It is a student-run, global SDG-focused competition with £1 million prize money given to the winning student team from a higher institution for the launch of their sustainability-focused start-up. The global theme for this year was "Redesigning Fashion" with 80 students from across 11 cohorts across Cranfield taking part. With the support of course directors and Student Academic Support leads, the Bettany Centre for Entrepreneurship and School of Management alumni, four events were successfully organised - starting with launch day, followed by two workshops and culminating with a pitch day. Innovious, a team of Management and Entrepreneurship MSc students, won the campus-level competition and was invited to join the regional summit in Tunis. Two other Cranfield teams were selected directly to join regional summits in Lisbon and Rio de Janeiro. In these regional summits, nine hundred teams will be competing for twenty slots in the global accelerator in Paris.

"As the campus director for the Hult Prize, I am immensely proud of having three teams represent the university in the next stage of the competition. I am also very grateful for the support of different stakeholders within the university to make this competition a success and provide support to our teams moving forward! This was an overall great opportunity to hone my leadership, project management and organisational skills."

Angelica Mari Santos, MBA, current student



Our methods are the way in which we teach our students, and this is underpinned by our extensive research into the challenges and opportunities associated with creating a sustainable future.

Principle 4 | Research

We will engage in conceptual and empirical research that advances our understanding about the role, dynamics, and impact of corporations in the creation of sustainable, social, environmental and economic value.

The challenges of responsible and sustainable management practice demand research that draws on the perspectives and expertise of multiple academic disciplines and offers insights and solutions that can be implemented in practice to achieve impact in business and society.

Cranfield is already globally recognised for the impact our research has through its application in the ‘real world.’ In the 2021 Research Excellence Framework (REF), 88% of our publications were rated as world leading or internationally excellent (compared to 74% in 2014) and the School of Management was ranked 7th (out of 108) in the UK for research impact (compared to 22nd (out of 101) in 2014). Our ambition is now explicitly to direct this impact toward sustainable innovation and delivering a sustainable future, with one of the four focus areas of our corporate plan to “be recognised globally as the UK’s Applied Research Powerhouse, and as a leader of sustainable innovation.”

We are increasingly finding ways to build bridges between schools to engage in collaborative research activities, with the School of Management’s focus on how environmental and social value creation supports long-term business resilience and success complemented by the environmental knowledge of the School of Water, Energy and Environment and the engineering expertise of the School of Aerospace, Transport and Manufacturing. The Resilience Grand Challenge, a pan-university thematic research initiative, is a powerful example of how a field can be advanced by bringing together perspectives in this way.

The School of Management’s Sustainable Business Group research focuses on informing organisational transformation towards sustainability with a focus on:

- innovation;
- partnerships;
- manufacturing, digitalisation and supply chains;
- organisational change.

In addition, we are increasingly engaging in interdisciplinary research related to sustainability and responsible management across the School of Management, including examples in this chapter of research activities at the intersection of sustainability and resilience, and sustainability and human resource management. However, we recognise that we still have more work to do, and this is reflected in our goals for this Principle.

Our Research and Innovation Office (RIO) helps us co-design research with industry and government, which contributes to sustainable innovation, and delivers positive impact.

“It’s about building on our heritage as a really strong institution, working with industry and stakeholders to deliver real-world change, and to solve their problems. What we want to do is grow that and scale it up and really be globally recognised for our strength in this space.” Alicen Nickson, Director of Research and Innovation.

Goals:

4a:
Incentivise and support research at the intersection of sustainability and other disciplines.

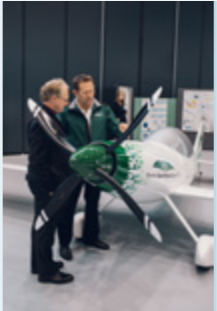
4b:
Work with the library team to include SDG tags against all published research to enable tracking of research output by SDG.

Recognised for impactful research

The Research Excellence Framework (REF) is a system for assessing the quality and impact of research in UK universities and helps inform an element of research funding that institutions receive. The 2021 results reflect Cranfield’s global reputation for excellence in applied research, across our sector-facing themes, that has a real-world impact, with 88% of Cranfield’s research rated as world-leading or internationally excellent.

Aerospace

Participating in a British consortium to build the world’s first advanced electric flight ecosystem. The project will help pave the way for air taxis taking to the skies, creating fast and sustainable flight options between cities.



Defence

Using X-rays to instantly identify illegal substances at airports. Halo is a new generation X-ray security scanner that will quickly and precisely identify the material of any suspicious objects. It means weapons, explosives, contraband drugs and illegal trade items could be recognised in milliseconds.



Energy and Sustainability

Understanding and managing cyber security risks for low-carbon mobility-as-a-service applications. In a cross-institutional consortium Mobility as a service (MaaS) concept offers travellers a unified service that combines various forms of transport at a single gateway. MaaS carries a promise of reducing traffic congestion, improving customer convenience, reducing social inequalities and carbon emissions by fostering the use of public transport.



Environment and Agrifood

Increasing Ethiopian peanut productivity and secure local supply of high quality (low toxin) peanuts. The NutriNuts project aims to mitigate the occurrence of aflatoxins in Ethiopian peanuts used in therapeutic food products to reduce malnutrition in Africa. This project aims to reduce food waste and improve people’s wellbeing in one of the poorest countries of the world.



Management

Co-producing Healthy, Sustainable Food Systems for Disadvantaged Communities. This project seeks to provide citizens of culturally diverse disadvantaged communities with choice and agency over the food they consume, by co-developing new products, new supply chains and new policy frameworks that deliver an affordable, attractive, healthy and sustainable diet.



Manufacturing and Materials

Discovering and developing more applications for graphene to support sustainability. Cranfield University has developed a unique technology for 3D printing of a graphene-infused aerospace balloon. This will revolutionise the way we monitor weather, deploy communication networks and design future satellites, paving the way to sustainable and cost-effective solutions.



Transport

Developing composite ‘smart’ masts to make rail electrification greener and cheaper. Cranfield University is working with industry and academic partners to develop a new kind of overhead railway line mast made from composite materials with integrated smart sensors.



Water

Reinventing the toilet – helping to solve sanitation issues in low income countries. The Nano Membrane Toilet is being developed to enable those without plumbing to have access to safe and hygienic facilities. This innovative solution uses nanotechnology to convert human waste to water and ash.



Fig 7: Examples of sustainability-related research within each Cranfield theme

PRME-related School of Management research highlights

Sustainability in the blood supply chain

The innovative [blood supply chain inventory management and logistics modelling research](#) led by Professors Wilding and Aktas and Dr Yates (Centre for Logistics, Procurement and Supply Chain Management) has had a significant impact at both national and international levels. Notably, within the UK, Cranfield has enabled the National Health Service Blood and Transplant to appreciably improve efficiency and decrease wastage. The report contributed to a 33% reduction in national bloodstocks held at any one time, leading to less wastage of a perishable and critical resource which cannot be manufactured synthetically, whilst ensuring stocks are available to meet the average annual UK National Health Service need of 1.4 million units of blood. This work has also been adopted by the National Blood Authority in Australia.

Diversity – inclusion – women’s representation on FTSE boards

The last 10 years have seen a dramatic change in the representation of women on FTSE 350 Boards accepting that gender diversity is a prerequisite for board legitimacy and effectiveness. This profound social, economic and policy change was picked up by companies, regulators, and policy makers globally. [The Female FTSE Board Report](#), pioneered at Cranfield and led by Professor Vinnicombe CBE, is an annual publication that not only provides the academic underpinning of trends in women’s representation on FTSE boards but also has led to positive change that has seen the percentage of women on FTSE 100 Boards rise from 26.3% in 2016 to 39% in 2022 while the parallel percentage for FTSE 250 boards is 39%, which means that FTSE 100 boards have already met the target set by the Women Leaders’ Review for 2025 and FTSE 250 are on the cusp of meeting it. Lord Davies, who spear-headed this change through his leadership of the first UK Government-backed commission into Women on Boards, has described the contribution of its leader Professor Vinnicombe thus, “[it’s] been a game changer. I will forever be in her debt and so will UK plc”.

Measuring the link between purpose and performance

Over the next two years we will be working on a [Knowledge Transfer Partnership \(KTP\)](#) with consultancy Contexis Ltd to enhance and scale a unique purpose measurement tool called the Contexis Index®. Most companies would guess that more engaged and purposeful employees drive better organisational performance. This tool proves it. It quantifies the extent to which an organisation’s purpose (beyond profit) is genuinely active in its culture, measures and benchmarks the resulting impact on human happiness and organisational performance and offers organisations insights and recommendations on how they can enhance that performance. The Cranfield team will use their expertise in measurement scales for human behaviour to enhance and validate the tool and help to establish a robust data collection and analysis platform to support increased use of the tool. The methodology and its findings will be written up in a publishable form, as well as in case studies for Cranfield teaching and Contexis marketing purposes.

This project brings together the disciplines of Sustainability and Human Resource Management (HRM)/ Organisational Behaviour to provide the latest research perspectives on organisational purpose. Currently, there is little research that combines these perspectives. Academics in the sustainability field are interested in the way in which an organisational purpose beyond profit can underpin a more environmental and socially sustainable approach within an organisation. They are also interested in the human and social benefits that come from organisational members being able to fulfil their personal purpose in the workplace. HRM/ Organisational Behaviour academics are interested in the implications of purpose (or lack of purpose) on employee outcomes, such as commitment, engagement, wellbeing and productivity, as well as the way in which HRM systems and Leadership can be developed in such a way as to promote and support purpose throughout the organisation. Combining these different objectives/approaches to investigating purpose is one of the aspects that makes this project both challenging and exciting for the academic team.

Research at the intersection of sustainability and resilience

The concepts of sustainability and resilience are typically considered independently, however the two concepts overlap significantly in theory and in practice. Resilience is about anticipating, preparing for, and responding to shocks, but also about adapting to respond better in the future. Sustainability is about how organisations respond to the challenges and opportunities due to environmental and social change, in terms of mitigating risk and adapting for long-term success – where success is measured across economic, social and environmental dimensions. There is growing interest in industry around the concepts of resilience and sustainability as organisations are emerging from the Covid-19 pandemic and consider how they can be better prepared for, as well as mitigate future disruptions including those driven by climate change. [Spondon Bhagowati’s](#) PhD (50% funded by the University) is therefore investigating how businesses can build in both resilience and sustainability, and reconcile the demands of both.

Resilience reimagined

[The Cranfield Grand Challenge](#) is a pan-university initiative to help ensure critical systems and services are better able to prepare for, adapt to, and learn effectively from anticipated or unexpected shocks and stresses - now and in the future. The Resilience Grand Challenge, led by Professor David Denyer in the School of Management, brings together experts from different disciplines across technology and management as well as policymakers and practitioners, not just to identify and understand resilience challenges, but also to help government, business, and society prepare for and be agile enough to respond to future disruptive events.

But how can resilience be developed? What are the practical steps necessary to strengthen resilience? How should leaders across business and government reimagine the way they think about resilience and respond to future crises?

The ground-breaking Resilience Reimagined report, published in March 2021 at the height of the Covid-19 pandemic, sought answers to these questions, identifying the need for a connected approach across all ‘five interdependent capitals’ that underpin our society – natural (including environmental and ecological), human, social, built (which includes goods and infrastructure) and financial. With 10 major recommendations, the report has influenced policy across government and wider society and been recognised as the basis for a new UK-wide Code of Practice [BS 65000:2022] on organisational resilience. As Professor Denyer commented: **“Whether it is another pandemic, another financial crisis or threats from a cyber-attack or climate change, the risks are multiple and complex but the capabilities of readiness, responsiveness, recoverability and regeneration, the 4Rs, are ones that can be ingrained.”**

Part-time working after the pandemic: the impact of the flexible furlough scheme

The UK’s flexible furlough scheme during the Covid-19 pandemic was effectively an experiment in part-time working for many employers, particularly those who had not used part-time working previously, or only for a limited range of jobs. [A report](#), led by Dr Clare Kelliher and funded by the Economic and Social Research Council (ESRC) as part of UK Research and Innovation’s rapid response to Covid-19, examined employers’ experiences and whether and how their perceptions of part-time working were influenced by this. The research found that, through using this scheme, employers, not only learned how to manage part-time working more effectively, but also became more open to offering part-time working opportunities. These findings have implications for achieving greater workforce diversity, tackling economic inactivity (especially amongst the over 50s and those with long-term health conditions), responding to labour shortages and promoting employee well-being. Using these findings, employers should be encouraged to innovate and experiment with different ways of organising work to foster learning, in the same way that businesses are encouraged to innovate with product and service development.

Research spotlight: Changing world of work

Cranfield's world-facing orientation is reinforced by thought leadership groups specifically designed to promote cross-disciplinary collaboration and research. For example, the innovatively named **Changing World of Work group**, led by Professor Emma Parry, focuses on how evolving work contexts impact managing people and organisations. Working with diverse stakeholders through research, consultancy and executive development, the group combines expertise across organisational behaviour, human resource management, leadership, employment relations, and gender, diversity and inclusion. It helps organisations make the most of future opportunities and build more successful and inclusive, future-ready workforces.

The Changing World of Work group concentrates on four broad themes:

- Changing demographics, gender and diversity.
- Managing global workforces and careers.
- Managing people in the contemporary context.
- New ways of working.

These relate to Sustainable Development Goals: #3 Good health and wellbeing, #5 Gender Equality, #8 Decent work and economic growth, and #10 Reduced inequalities.

Within this group is the Gender, Leadership and Inclusion Centre, led by Dr. Deirdre Anderson, that investigates factors influencing equality, diversity and inclusion at work, interrogating power and privilege, and pioneering solutions for a more representative workforce that has equal access to opportunities and full participation.

Recent highlights include:

- The 2023 Global Women's Entrepreneurship Roundtable in collaboration with the Bettany Centre for Entrepreneurship to commemorate International Women's Day.
- A report commissioned by the UK Financial Reporting Council providing evidence and identifying good practice on the challenges and opportunities faced by individuals from minoritised ethnic backgrounds in reaching Board positions in FTSE 350 companies. This work formed part of the ongoing UK Parker Review into diversity at senior executive levels.
- The second virtual 'Women in Leadership' event, giving practical tips to help women navigate their careers into leadership positions - a joint venture between Cranfield and ESMT Berlin (Germany), Imperial College Business School (UK), and Rotterdam School of Management (Netherlands).
- Investigating gender diversity and board performance (a collaborative project across UK, USA and Ghana) involving Cranfield, Henley, Brunel and Strathclyde business schools) designed to increase understanding of how the relationship between board gender and corporate governance operates.

"There is a pressing need for a greater understanding of power and privilege, and how that affects people's experiences of employment and career progression. Historically, many people have been disadvantaged and categorised as a "minority" on the basis of their race, ethnicity, a disability, or sexual orientation. They experience microaggressions, negativity and even open hostility, while others, the so-called majority, may receive micro-affirmations from the warmth of a greeting or a tap on the shoulder about an opportunity. At the same time, we see recruitment, selection and promotion processes that continue to hide their bias behind the concept of meritocracy, or hiring 'the best person for the job'. The Cranfield Gender, Leadership and Inclusion Centre exists to accelerate workplaces and organisations towards being genuinely representative and inclusive of the societies they inhabit, creating a fairer world for us all."

Dr Deirdre Anderson, CPsychol, AFBPsS, AcFCIPD, Reader in Organisational Behaviour and Occupational Psychology, and Director of Gender, Leadership and Inclusion Research Centre

Putting principles into practice: Equality, Diversity and Inclusion at Cranfield

At Cranfield we value Equality, Diversity and Inclusion (EDI) and recognise that people from different backgrounds create a vibrant working and learning environment. Our commitment to EDI is outlined in the University Charter:

"The University will provide a collaborative and supportive working and learning environment, which embeds equality of opportunity and the rights of individuals in all its operations and treats everyone with dignity and respect".

Through our EDI policies and initiatives, we aim to:

- maintain a culture where everyone can work and study together harmoniously.
- ensure our Cranfield community are treated with dignity and respect.
- support everyone to realise their full potential.
- embed our University values and ensure our staff and students feel valued for who they are.

Our organisational practices are informed by the Changing World of Work group and the Gender, Leadership and Inclusion Centre. We bring equality, diversity and inclusion into our education practices. For example, 'Effective Cross-Cultural Management' is a compulsory module on the Management MSc that explores management and leadership issues arising from working with different cultures in a domestic or international context; it enables students to manage a range of cross-cultural challenges more successfully. Similarly, Developing Organisational Culture, a module on the MSc in HRM, examines organisational cultures and inclusive work environments, with an emphasis on embedding EDI within the strategic orientation of companies.



Faculty thought leadership: Changing World of Work

Dr Deirdre Anderson	CPsychol, AFBPsS, AcFCIPD Director, Gender, Leadership and Inclusion Research Centre	Deirdre's research focuses on work-life issues and inclusion, primarily in the areas of gender and race/ethnicity, seeking to highlight and implement organisational processes and practices which contribute to greater inclusivity in the work environment.
Professor Michael Dickmann	Professor of International Human Resource Management	Michael's research focuses on human resource strategies, structures and processes of multinational organisations, international mobility and global careers.
Professor Clare Kelliher	FAcSS, FHEA, FRSA, AcFCIPD Professor of Work and Organisation	Clare's research focuses on the implementation and outcomes from flexible working arrangements. Recent research examined how the use of the UK government sponsored 'furlough scheme' during the pandemic encouraged employers to experiment with part-time working.
Professor Emma Parry	FBAM, Academic FCIPD, FAcSS Professor of Human Resource Management, Head of the Changing World of Work Group	Emma's expertise lies in strategic HRM, talent management and organisation design, particularly in the impact of the changing external context on how we manage people.
Professor Sue Vinnicombe	CBE Professor of Women and Leadership Strategy, People and Leadership	Sue's research interests focus on the lack of women in leadership, specifically on corporate boards, women's leadership styles and the issues in developing their executive careers. She launched the annual Female FTSE Board Report in 1999 which is regarded as the premier research resource on women directors in the UK.
Dr Mengyi Xu	FHEA, MCIPD Lecturer in Human Resource Management	Mengyi's research focuses on work-life balance and boundaries, hybrid working, and the future of work with AI implications in HRM.
Dr Valentina Battista	Lecturer in Human Resource Management	Valentina's work focuses on ways to measure employee performance using new technologies, exploring how technology impacts work, the workforce, and the workplace.
Dr Chibuzo Ejiogu	Reader in Human Resource Management	Chibuzo's research interests include business ethics and corporate social responsibility (CSR), sustainable HRM, equality, diversity and inclusion (EDI), global south, leadership and governance challenges of transparency, accountability and corruption, highly skilled migrants and globally mobile workforce, modern slavery and precarious work in global supply chains.
Dr Joshua Haist	Lecturer in Human Resource Management	Joshua lectures and researches in the areas of international HRM, evidence-based management, organisational behaviour, and leadership.

Dr Ruth Massie	PhD, MRes, MA(AP), MBA, BSc(Hons) SFHEA Associate Professor in Andragogy	Ruth's work focuses on management in the higher education sector, organisational resilience, Directors and their engagement with information, and business continuity and cyber resilience.
David Carew	Senior Lecturer in Organisational Behaviour	David's research interests include work and health over an employee's lifetime, organisational culture and change, employee retention, and change, the psychological contract and employee engagement in complex and high reliability organisations, among others.
Dr Lyn Lanka	FHEA, CPSY, APA Associate Member Lecturer in Organisational Behaviour	Lyn's research interests are in the areas of leadership, interpersonal interactions and the role of followers in the leadership process. Her research also explores personal development in leadership through mentoring and role models and organisational issues around these issues.
Dr Chia-Yu Kou-Barrett	Lecturer in Organisational Behaviour and Applied Psychology	Chia-Yu explores how interdisciplinary teams work collaboratively to share knowledge, solve problems, and coordinate their individuals' tasks in high-hazard engineering projects.
Dr Monica Franco-Santos	Reader in Organisational Governance, Action, Execution and Implementation	Monica's research examines the complex and dynamic relationship between organisational governance and people's behaviour and well-being. Recent work investigates how performance management systems influence employees' subjective well-being, sustainability-related behaviours and innovation.
Professor Richard Kwiatkowski	Professor of Organisational Psychology, Organisational Behaviour and Applied Psychology	Richard's scholarly interests centre around the application of psychology to organisations and individuals; this includes work on culture change and resistance, assessment, emotional aspects of learning and change, applied ethics, and political psychology.

Our research teaches the next generation of responsible leaders and informs practice through the partnerships formed with businesses and other organisations.



Principle 5 | Partnerships

We will interact with managers to extend our knowledge of their challenges in meeting social and environmental responsibilities. And explore jointly effective approaches to meeting these challenges.

This is an area Cranfield School of Management excels in, owing to its deep roots in industry and practice through partnership. Cranfield University faculty, staff and students work extensively in partnership with external commercial, public and not-for-profit organisations to help them to improve their responsible management practices and sustainability performance.

Executive education represents a key opportunity for us to work directly with leaders of businesses to equip them with the knowledge, competencies, and mindset to lead and manage change towards improved sustainability performance. Most “open” programmes now include substantive modules or sessions on sustainability and/or responsible management, for example the General Management Programme and the Breakthrough Leadership programme. Increasingly, programmes customised for specific client organisations similarly emphasise social and environmental sustainability, for example, the Project Leadership Programme, run on behalf of the UK Government’s Infrastructure and Projects Authority to develop project leadership skills across the public sector, and the Building Leaders Programme delivered to senior leaders in Kier Construction Ltd.

When it comes to supporting smaller enterprises, the Bettany Centre for Entrepreneurship has established itself as a local hub connecting with local SMEs and councils to solve sustainability challenges facing them today, supporting them on their journeys towards net zero and improved social and environmental outcomes.

The School of Management has grasped the opportunity to develop lifelong education for professionals presented by the UK Apprenticeships scheme. The scheme sees businesses pay a proportion of their profit into the Apprenticeship Levy which they can then use to fund ongoing education for their employees. Developed in partnership with Grant Thornton, the Executive MBA was the first Cranfield Apprenticeship to launch in 2017 and was designed with a compulsory Leading Sustainable Business module at its heart. Since our last report, we have successfully launched our Sustainability Business Specialist Apprenticeship with over 100 students now on the programme one year from launch.

We find that relationships with businesses forged through our taught programme and executive education often develop into more wide-ranging, mutually beneficial partnerships: see for example our relationship with Network Rail described on page 58.

Goals:

5a:

Enrol 80-100 executive students per annum onto the Sustainability MSc.

5b:

Launch a Climate Action Planning programme to all Business Growth programme alumni as the next stage of growth and development.

5c:

Creating an active alumni network of Sustainability MSc graduates.

“I see my role as connecting our education provision, our research and our work with business partners and linking within our own campus. I work closely with various faculty groups across SOM and the wider university to help connect industry partners in the technical school to management education.”

Phil Longhurst, Director of Partnerships and Professor of Environment and Energy Technology for School of Water, Energy and Environment

Leadership for Good: Transformative executive education for a new era

The Cranfield Executive Development (CED) team is an integral part of the School of Management, dedicated to creating responsible management thinking, improving business performance and inspiring the next generation of business leaders.

CED works at the intersection between academia and business, implementing a deep-rooted ethos of delivering education for the greater good in all activities. This philosophy is woven throughout the values which CED upholds for itself, and external engagement with individuals and organisations. This manifests in creating an awareness of social and environmental responsibilities from an individual level through to working with organisations to leverage value out of their Environmental, Social and Governance (ESG) policies.

There is a growing pressure on business to take meaningful action in the face of mounting global social and environmental challenges. Every business needs to be able to articulate why they do what they do, and why it matters in the world. The purpose of CED is to transform knowledge into action, using a combination of rigorous research and inspirational teaching. Our programmes are transforming global organisations, delivering innovative solutions and setting new standards in how leaders and teams overcome complex problems.

CED design, develop and deliver data-driven programmes to unlock the long-term strategic and sustainable growth of an organisation by maximising the potential leadership capabilities. Drawing on our School of Management academic expertise in how sustainability works in practice across the management disciplines, we help organisations reduce risk, lower costs, increase trust and drive growth, all of which contributes to the organisation’s long-term financial performance while at the same time creating value for society.

Organisations and individuals are able to leverage our faculty expertise, which is amongst the largest and most diverse of any business school in Europe. Our world-class faculty are armed with cutting-edge industry insights, offering fresh perspectives, ideas and solutions to global challenges.

“We provide transformative executive education for and with organisations and individuals. Sustainability is at the heart of everything we do whether supporting an organisation to tackle emerging challenges or preparing for future skills needs. We are ideally positioned to build unique and sustainable solutions that address pressing organisational problems; taking a systems approach to building capability and empowering our clients.”

Camilla Jonsson, Portfolio Director, Cranfield Executive Development

Bettany Centre for Entrepreneurship – partnership for a full entrepreneurial ecosystem

While CED focus on the needs of larger corporations, the Bettany Centre has evolved a whole ecosystem to empower entrepreneurs at every stage of their journey. They offer a whole range of programmes for different needs: the [i2i](#) workshops and [Start-Up Weekends](#) for creative researchers and individuals looking to unlock their entrepreneurial flair and consider the social and economic relevance of their ideas; the [Ready For Scale](#) programme for start-ups needing guidance and skills to expand; the iconic [Business Growth Programme](#), for owner-entrepreneurs which, for over three decades, has helped more than 3,100 businesses scale up and placed Cranfield at the centre of SME development in the UK and internationally.

The Covid-19 pandemic had devastating consequences in human, social, economic and organisational terms. Such a once-in-a-lifetime event represented an existential threat to small businesses, many of which were facing extinction. With SMEs such a crucial part of the UK economy (accounting for 24% of UK private sector businesses, 43% of UK employment and 45% of GDP), Cranfield's Bettany Centre for Entrepreneurship geared up to address this crisis, throwing out a transformative lifeline through a series of collaborative partnerships and programmes.

"We'd like to congratulate Cranfield School of Management on its Small Business Charter Award. The breadth and impact of Cranfield on SMEs, the local economy and its students are a credit to the school and its innovative programmes. It is evident that the School of Management, and the dedicated Bettany Centre, play an important and holistic role in the SME ecosystem in the Bedfordshire region, and we look forward to working closely with the school in the future as it continues to extend its impact."

Barney Roe, Interim Chief Executive of the Chartered Association of Business Schools

When Covid-19 hit, the Bettany Centre designed and delivered, in a matter of weeks, a survival and recovery guide, the [Business Growth Response Programme](#) to steward SMEs through the Covid-19 disaster. SMEs were supported in three stages: immediate help to address the crisis; stabilisation to adapt to the 'new normal'; and, finally, recovery and reinvention to bounce back stronger and grow their business. Over 3,000 participants joined a series of free-of-charge events including more than 40 webinars and virtual workshops, along with drop-in clinics with business counsellors to help owners nurture and nurse their organisations back to health.

Building on this success, Cranfield then actively reached out to public authorities (Central Bedfordshire, Luton, Milton Keynes, and North and West Northamptonshire) to offer support to the regional SME network. Three key themes emerged: (1) local businesses were at high risk of failing, (2) net zero was a critical central government priority, and (3) local authorities had central government funding to support businesses but did not have the skills or resources in place to help these businesses at scale and speed.

Recognising the urgency, Councils readily engaged and began actively funding places for local SMEs. In total, 331 SMEs attended via local authority scholarship funding in 2021/22 alone, as potential obliteration was turned into business opportunity through interventions designed to change minds and reset compasses post-pandemic. At the forefront of this, the radical [Ready for Net Zero Growth](#) programme set out to build net zero into growth plans. Rather than simply increasing awareness of the relationship between climate change and emissions, participants were introduced to tools, technologies and techniques to measure current emissions, and then to set future science-based targets that would reduce emissions and make their operations, products and services less carbon intensive. The programme culminated in each participant developing a growth plan for the future that embeds their business's net zero ambitions while pledging to adhere to the UN's Race to Net Zero Initiative.

In recognition of its wide-ranging support for small businesses, outstanding student entrepreneurship provision and dedicated work with small or medium-sized enterprises (SMEs) to support growth in the local community, Cranfield School of Management has achieved the Small Business Charter Award. The [Small Business Charter](#) Award is a national accreditation, assessed by small business leaders, and Cranfield School of Management now joins 63 other business schools across the UK and Ireland that hold the award.

Claire Banwell-Spencer Head of Entrepreneurship Growth Portfolio

Claire is a dual qualified Barrister and Solicitor with an MBA from Cranfield University. Prior to undertaking her MBA Claire worked as a Corporate Lawyer working both in-house and in private practice. Since completing her MBA she has followed her passion for entrepreneurship and innovation. Her work on building partnerships to create a robust and accessible entrepreneurial ecosystem have empowered entrepreneurs to innovate for a more sustainable future.

“

“For a business to be sustainable, it must be able to grow in a way that is good for our planet. For me, it's about leaving the world in a better place for the next generation and helping businesses to go through those transitions needed for sustainable growth. At the Bettany Centre for Entrepreneurship, we have objectives to grow existing partnerships and build new strategic collaborations to maximise impact, cultivate interactions with local businesses and civic organisations to deepen regional engagement and contribute to industrial growth.

“The UK government targets around net-zero put responsibility on local authorities to ensure the local businesses are getting education on energy sustainability and the transition to net zero. Our Ready for Net Zero Growth programme was developed with funding from Central Bedfordshire Council. The Green Recovery Innovation programme was funded by North and West Northamptonshire and we've now had four local councils and Green Future Investments all provide scholarships for businesses to attend those courses. This is where significant barriers and challenges faced by SMEs in their journey to net zero can be removed and why it requires a partnership and ecosystem approach.”

”



Master's Level Apprenticeships

At Cranfield, we are passionate about providing education tailored for industry. As one of the first universities in the UK to offer degree apprenticeships at master's level, we understand what is needed to develop industry-led apprenticeship standards and have the expertise to deliver that training. With our distinctive focus on technology and management, powerful industry links, global reputation for executive development, world-class research and knowledge of what really works in practice, we're uniquely positioned to provide training that goes beyond the technical to create and develop leaders for the future.

We have supported over 2,000 apprentices since we launched our portfolio in 2017, with over 800 apprentices across 30 cohorts currently attending our programmes. Our apprentices have achieved exceptional pass rates, with a first attempt pass rate of 99% and 100% success overall, with over 80% achieving merit/distinction. Our apprenticeship offering has been praised by Ofsted inspectors following an initial monitoring visit in October 2021, with inspectors highlighting the high-quality curriculum which is in tune with the needs of businesses, the support and expert staff that learners have access to, and the career progression that apprentices go on to achieve.

Professor Sean Tyrrel, Pro-Vice-Chancellor – Education at Cranfield University said: **"We're delighted with our initial Ofsted report for Cranfield's apprenticeship provision. Working with individuals, small businesses and right up to multinational firms, Cranfield's apprenticeship courses focus on building the skills and knowledge that industry needs. Seeing the progress of our apprentices as they develop is fantastic, and something I am glad that Ofsted has highlighted."**

The Sustainability Business Specialist Apprenticeship, which Cranfield was the first to offer, was one of six green apprenticeships that have been hand-picked by industry experts to mark the Coronation in recognition of their contribution to green skills development. The apprenticeships have been selected for their contribution to creating a low carbon economy by ensuring the country's workforce is equipped with the skills needed to support the transition to net zero.

Executive Master's in Business Administration (EMBA)

The Cranfield Senior Leader Apprenticeship+ Executive MBA in partnership with accounting and advisory services firm, Grant Thornton, aims to enhance the leadership competencies of senior executives, requiring them to reflect on and evaluate anew many of the skills that they apply in their work. It combines the core knowledge, skills and behaviours recognised by the Senior Leader Apprenticeship standard and Executive MBA themes during the first 15 months, with a complementary part two experience which fully develops the leadership qualities and academic foundations of an Executive MBA.

In 2022, the EMBA has been placed in the top 10 in the UK in the Financial Times EMBA rankings. Cranfield is the only wholly UK-based school in the 2022 Financial Times rankings to offer an EMBA part-funded by the apprenticeship levy via the Senior Leader Apprenticeship standard.

Influencing senior leaders to take sustainable action

Seeing practical application and real-world impact within organisations is a highlight of teaching modules on executive programmes directly to managers in the workplace. Kate Goldman-Toomey, current EMBA student 2021-2023, approached her module leader to report back on progress made within her organisation as a result of studying the Leading Sustainable Business module.

"When I was looking at Executive MBA programmes it was important to me that sustainability was an integral part of the programme. And thinking about it in terms of how it's not just about compliance, it's about how do you really drive that momentum, do something that's additive and around value creation as well. Not only did the sustainability module pull lots of bits together, but it also embedded it within leading and driving sustainable profitable businesses. It deepened my ability to make the business case to think about how you negotiate and influence others. Immediately after doing the module, I made a compelling case, influencing senior leaders, for sustainability to be a priority for the executive team and I got a mandate to work with our CFO and the Director of Strategy to pull together an approach. I really landed that point about going way beyond compliance and thinking about how you would drive competitor advantage and value creation."

Kate Goldman-Toomey, Director of Corporate Partnerships and Philanthropy at Macmillan Cancer Support, EMBA Apprentice 2021-2023



Employer comment

"Kate has long held a passion for sustainability. She has built her experience through working with corporate partners including Unilever, Boots and M&S at Macmillan and prior to that, Unicef and Save the Children, where she has supported and challenged businesses, contributing to their sustainability agenda. I've seen how the course has ignited her passion further and given her invaluable knowledge, skills and tools to consider how we and others might do our business better. She's honed her skills in influencing, how to develop a cohesive strategy of our own and how to approach delivering for people living with cancer, while supporting wider society and the planet."

Claire Rowney, Executive Director of Fundraising at MacMillan

Investing in responsible managers within our institution

Since 2021, six Cranfield staff have embarked on their own Executive MBA journey, reflecting Cranfield's commitment to building leadership and management capability within our own leadership community. Investing in our managers in this way, includes giving staff access to the Ethics and Sustainability centred modules, continuing to spread the influence of responsible management within our organisation.

Sustainability Business Specialist Apprenticeship with Sustainability MSc

In March 2022, Cranfield University launched a part-time Sustainability MSc, which aligns with the Level 7 Sustainability Business Specialist Apprenticeship standard. A year in development, the course bridges disciplinary silos to harness the diversity of faculty expertise from the School of Management and the School of Water, Energy and Environment, and is the first ever Cranfield course to be co-owned and co-delivered by two Schools. The course was designed to make learning as accessible as possible, whilst also limiting its carbon footprint, with teaching delivered live online every other Friday, complemented by three Residentials at Cranfield during the two and a half year programme. The online, part-time nature of the course, and the opportunity to access apprenticeship-levy funding, has made master's level study possible for many who may not typically have been able to access, afford, or take time out to pursue postgraduate study.

The course was designed and developed with input from IEMA (Institute of Environmental Management and Assessment) – the professional home of over 15,000 environment and sustainability professionals from across the globe, and ICRS (Institute of Corporate Responsibility and Sustainability) – the UK professional body for sustainability practitioners with 1,000 individual members and 45 organisational members. 60 organisations were approached to provide comment on the relevance and appeal of the proposed course, with many providing written feedback and/or accepting invitations for in-depth follow-up conversations (e.g. Severn Trent, Central Bedfordshire Council, Unilever and the Duchy of Cornwall). A co-creation workshop was held with representatives from eight businesses, local councils and professional bodies, with their feedback and ideas significantly influencing the ultimate design of course content and delivery.

Over 100 students from 60 organisations have enrolled on the course to date (across three intakes). The large majority joined the course as Apprentices, while others are sponsored by their organisations or fund their studies independently. There is a close relationship between student, employer and the Cranfield course team, with regular meetings to review progress and how learning has been applied to achieve impact. Employers also join their Apprentices for the first part of the annual Residentials, helping them to understand more about the programme and how it brings value to their Apprentices and their organisations, as well as showing support to their employees. We are currently recruiting a PhD Scholar to rigorously evaluate the impact that this Apprenticeship has on individuals and their organisations.

This unique programme is one of six green apprenticeships that have been hand-picked by industry experts for their sustainability credentials in honour of His Majesty The King's Coronation in May 2023. It recognises the critical role education and skills play in responding to the climate crisis and preparing individuals and organisations for future challenges.

Jennifer Coupland, Chief Executive of the Institute for Apprenticeships and Technical Education commended: **"These six apprenticeships represent the gold-standard for green skills and will pave the way for hundreds more."**



Sustainability MSc, March 2023 cohort.

"It's made a huge impact on me and my work. My employer has been really delighted by the relevance of it because every assignment I've been able to apply to work and add value.

"I stumbled into the official sustainability role when the previous head retired, and I had imposter syndrome. In my role, I'm the main source of sustainability expertise internally for all our employees, and externally for customers that want advice – from big corporations with sustainability departments to small customers who have no idea how to get started. It's important that I know what I'm talking about, and the master's has been hugely instrumental in knowing how to do that.

"When I started in the role, I was trying to hit everything in the UN Sustainable Development Goals which is 17 goals. Rosina did a module on leading sustainable business which made me realise I need to do a materiality assessment and really look at how our business model is relevant to sustainability. The idea is to focus on less but to do more in that area. It's improved our prioritisation, and our whole strategy has then changed. Off the back of that I've been able to recruit roles that have increased the effectiveness of our team. The business is then seeing the value that we're delivering commercially too. I've been able to influence the board a lot more in terms of our principles and governance. We signed up as a supporter of The Better Business Act which is about greater obligation to people and planet, not just shareholders.

"We had a module on evaluating sustainability, and it's been so relevant for engaging with customers who want to decarbonise their food supply chain. From this, I did a blog on the four challenges of carbon labelling on menus and doing a podcast with a student I met on the course. The network I've built on this course with fellow students and researchers has been invaluable to building my knowledge base. Overall, I'm able to add a lot more value to my employer in terms of our branding in the marketplace and feel like we're giving well-founded expertise to our customers."

Julie Oust, Head of Sustainability at Bidfood, Sustainability MSc apprentice, 2022-2024

Employer comment

"The course has brought so many benefits to Bidfood; our customers have peace of mind that we are keeping up with latest developments and innovation in this area, and the knowledge that Julie has gained from the course has really helped us to provide thought leadership in key areas of food sustainability. Cranfield enables students to tailor their assignments around their own business priorities and context, so this has added value from the very first weeks."

Heather Angus, People and Sustainability Director at BidcorpUK

Building multi-faceted partnerships with organisations: Network Rail

Network rail is an example of an organisation whom we partner with in a variety of ways to help drive sustainability performance:

- MSc Management and Corporate Sustainability 2020-21 student Tom Lay conducted his thesis at Network Rail and has gone on to work for them as a Strategic Planner in the industry planning team for the North-West and Central region. He is involved in developing the 30-year strategic plan, with a special focus on sustainable growth and social value. For his thesis project, he chose the topic "An Investigation into the Barriers which prevent Technological Change in relation to the Railway's Traction Energy Decarbonisation Strategy, and how they can be overcome". This topic was chosen in connection to his acceptance onto the Network Rail Graduate scheme as he wanted to explore a topic that would have a tangible benefit to the role. From this, he secured an extended placement with the Environment and Sustainable Development (ESD) team. During his thesis project, he interviewed several members from the ESD team and continues to maintain those relationships.
- Cranfield and Network Rail co-funded a PhD which will develop a business and operational strategy to support decision making for moving to net zero and non-carbon use within Network Rail's fleet.
- Wendi Wheeler, Principal Environment and Social Value Manager at Network Rail is a current Apprentice on the Sustainability MSc.
- Dr Rosina Watson has contributed external sustainability insight at Network Rail sustainability events.

These activities extend the scope of a longer-standing [educational partnership](#) between the two organisations, whereby Network Rail offers employees in its supply chain operations function a suite of development opportunities provided by Cranfield, including course content relevant to the railway supply chain.



MSc Management and Corporate Sustainability 2020 - 21 student Tom Lay involved in developing the 30-year plan at Network Rail.

Our ongoing conversations sustain our partnerships. The next chapter showcases where we promote dialogue on issues related to global social responsibility and sustainability.

Principle 6 | Dialogue

We will facilitate and support dialogue and debate among different stakeholders around critical issues related to responsibility and sustainability.

We create communities of shared knowledge around critical issues related to responsibility and sustainability by working closely with our students, who are encouraged to network with key stakeholders throughout their studies. The informal Cranfield Sustainability Network convened by the Sustainable Business Group has over 2,000 active members, including faculty, staff, students and alumni from across Cranfield and other universities, together with practitioners from a wide-range of businesses and organisations. The Sustainable Business LinkedIn group also serves as a touchpoint for over 1,000 sustainability practitioners, students and alumni.

We share our approach to sustainability teaching and learning with other educators: for example, by hosting an [Exploring Sustainable Futures game](#) at the British Academy of Management conference.

We facilitate dialogue with businesses through events and conferences. For example, faculty and students ran workshops and engaged with participants at the annual Edie Sustainable Leaders conference. Cranfield's annual VentureDay for entrepreneurs and enterprise investors attracts over 150 attendees and has increasingly been focused on sharing insight and knowledge on the challenges and opportunities presented by social and environmental trends for the owners of smaller businesses. The employers of apprentices are also actively involved with Cranfield and their candidates' learning. The Sustainability Business Specialist Apprenticeship was designed with input from potential employers; they now join their apprentices at their annual Cranfield residential week to learn about the programme and how apprentices' learning is driving impact in their organisations. We also create dialogue with businesses on sustainability and responsible management through teaching on executive education programmes.

Our engagement with civil society organisations takes a variety of forms. For the second year running, Cranfield are official nominators for The Earthshot Prize. A long-standing relationship with non-profit Waste and Sanitation for the Urban Poor (WSUP) is oriented around an annual student consultancy project which provides fresh insights for WSUP as well as valuable learning for students.

Dialogue with government takes place in the context of research projects such as the Dairy Evolution Network (DEX) which worked with policymakers and other stakeholders in the dairy industry to identify future research needs in this sector, and the [Resilience Grand Challenge](#) initiative which has influenced the UK government's approach to organisational resilience.

In this reporting period, we also took advantage of an opportunity to build dialogue around sustainability in the media with the UK's public service broadcaster, the BBC.

Goals:

6a:

Increase the amount of PRME-related external communications, including blogs (e.g. research into practice blogs). Work with the communications and media teams across the University to include SDG tags against outputs to enable tracking of output.

6b:

Increase the number of Sustainability Network Speaker Series events co-hosted with other disciplinary group within School of Management and wider university.

6c:

Create a sustainability/PRME Advisory group including representatives from diverse stakeholder groups.

Building dialogue by nurturing networks

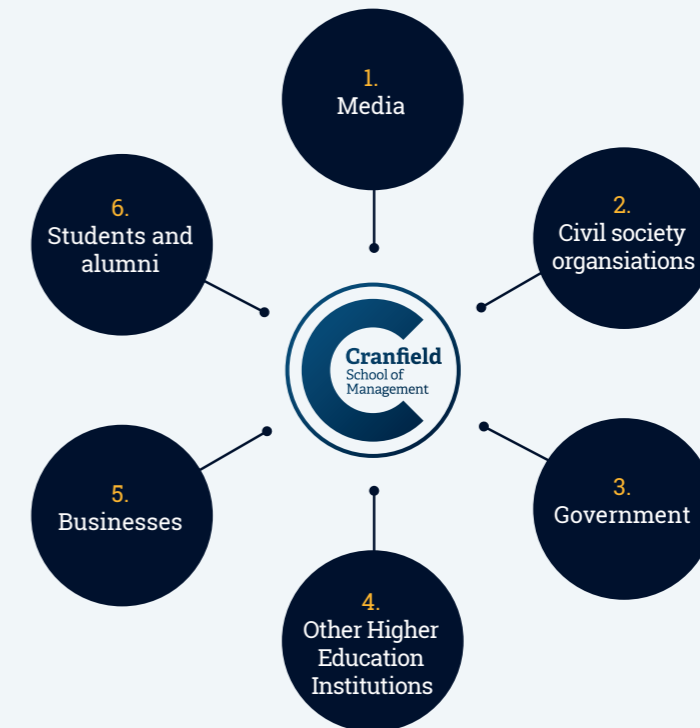


Fig 8: Cranfield SOM has connected these stakeholders over a shared interest of promoting sustainable and responsible business

1. Media

Teaching sustainability knowledge in the media sector

Between June and September 2021, over 100 BBC executives took part in the Leading Corporate Sustainability module as part of their Business and Strategic Leadership MSc. This represented an opportunity to tailor the module for the media sector, build a deeper relationship with the BBC to support their sustainability strategy, and collect data for research. As module leader, Dr Rosina Watson partnered with Carnstone, a sustainability consultancy that convenes the Responsible Media Forum, to adapt and co-teach the module. She also invited three senior sustainability leaders in the BBC to deliver guest lectures. By teaching together, Cranfield and Carnstone learned from each other and delivered a customised module that BBC participants found relevant and applicable to their organisations and their own roles.

For their module assessment, students were tasked with proposing a sustainability-oriented innovation project for the BBC. Cranfield wanted to support the BBC in reviewing these proposals and implementing the best and most appropriate proposals to create immediate impact so, as well as marking assessments from an academic perspective, Rosina categorised the proposed innovations and evaluated them from a practical perspective to help facilitate their handover to a newly-appointed engagement and innovation lead in the BBC sustainability team.

Finally, we designed a piece of research based on the set of interviews conducted by BBC employers with peers as part of the pre-work for the module. Over 100 interviews transcripts and interviewee consent forms were collected and will form the core data set for research which explores organisational purpose and values in the BBC.

2. Civil society organisations

Engaging with civil organisations

David Grayson, Emeritus Professor of Corporate Responsibility, and doctoral student Melody McLaren researched and wrote the official history of the ['Prince's Responsible Business Network: Business in the Community'](#). This is the remarkable story of a non-profit organisation and a social movement that supports and celebrates organisations pursuing positive environmental and social action. The research itself created dialogue between BITC's members, Cranfield researchers, and the wider community about responsible business practice. This was launched in front of an audience of 400 guests at the Mansion House in June 2022 and remains available online for wider engagement.

The Earthshot Prize: Engaging with global challenges

Cranfield University is proud to be among a network of distinguished organisations from around the world chosen as official nominators for **The Earthshot Prize**. Each year, a panel of academics from across the University with diverse expertise in sustainability-related fields reviews, discusses and evaluates applications. We nominate to the next round of the selection process those individuals, communities, businesses and organisations whose solutions make the most progress towards achieving the five Earthshots. These are:

- Protect and restore nature.
- Clean our air.
- Revive our oceans.
- Build a waste-free world.
- Fix our climate.

One winner in each of the five categories is awarded a £1 million prize to develop their solution and be given support from The Earthshot Prize network of mentors, funders, businesses, governments and NGOs. In our first year as a nominating organisation (2021) our four nominations were:

- **Biosphere solar:** A Dutch start-up developing a circular, fair and open-source solar panel that proactively reduces waste and brings circularity to the solar industry, bringing the 'reuse and repair' model to the photovoltaics (PV) industry.
- **CCm Technologies:** A UK cleantech using captured carbon dioxide from industrial power generation to stabilise a wide variety of materials (such as ammonia and phosphates) from agricultural and industrial waste streams and use these to create new fertiliser products with a significantly lower carbon footprint.
- **ENSO Tyres:** Using higher quality, sustainable raw materials, combined with cutting-edge engineering to reduce the negative impact of tyres, as well as side-stepping the traditional distributor sales channel and directly offering their tyres on subscription to fleets.
- **Riversimple:** A UK-based manufacturer of hydrogen fuelled cars who demonstrate positive impact through both their technology and their business model, which is based on long-term usership, not ownership, in accordance with circular economy principles.

THE
EARTHSHOT
PRIZE

OFFICIAL NOMINATOR
2022

Dr Rosina Watson Head of the Sustainable Business Group

Rosina Watson completed her PhD at Cranfield between 2014 and 2018 after an 18-year career in industry, primarily in the retail sector, which culminated with three years as Head of Corporate Sustainability at Home Retail Group (Argos and Homebase). Rosina is now an Associate Professor of Sustainability, Head of the Sustainable Business Group and Co-Director of the Sustainability MSc. Her research centres on sustainable innovation, both in large corporate organisations and by entrepreneurs, with a focus on how partnerships and collaboration can enhance sustainable innovation.

“One of the things I love about Cranfield and my role is connecting people and ideas to help accelerate progress towards a sustainable future. My decision to change my career in mid-life was motivated by a desire to drive significant change quickly in the way businesses and their leaders think about their role in society, and the ways they can drive value for society, not just profit for profit's sake. Our team works hard to create a supportive community that can help broker relationships between stakeholders who have questions and challenges and researchers and innovators who have answers and solutions.

“I speak to many organisations about our sustainability research and teaching, and regularly involve external experts and speakers in our teaching and events, including Mary Creagh (former MP and Chair of the Environmental Audit Committee), Carol Somper (Sustainability Director at environmental consultancy JRP Solutions), Sarah Galloway (Sustainability Consultant at global leadership advisory and search firm Russell Reynolds) and Daniel Witte (Consultant at sustainability consultancy Carnstone).

“Sustainability challenges are complex, and the solutions involve all parts of society – business, government, investors, civil society and us as individual citizens. That's why we invest our time and passion in building community and facilitating dialogue outside the university – making our research and teaching count in terms of helping to drive the positive change we so urgently need. I don't think my job would be as externally focused as this in any other University!”



3. Government

Creating dialogue between researchers, industry and policy stakeholders

Aligned with Cranfield University's mission, we are deeply committed to creating research with significant impact and influencing industry and policy stakeholders. One of our recent initiatives includes the creation of the DEX (Dairy Evolution NeXt), a unique community of researchers, industry and policymakers across Ireland and the UK, funded by ESRC-IRC. DEX aims to create a dialogue between different stakeholders to explore innovation, sustainability, value-addition and digitalisation across the dairy sector.

To create a global impact, we have also received funding from the Royal Society to transfer our knowledge and expertise in circular economy to help Brazilian researchers and industrial partners. Our goal is to help enhance their competencies in using digital technologies and business model innovations for circular economy practices.

In February and July 2022, Dr Miying Yang (Reader in Sustainable Business, Cranfield University) hosted two workshops, funded by ESRC InterAct, ESRC-IRC and the Royal Society. The workshops disseminated research findings on the potential of emerging digital technologies, such as IoT, big data, AI, 3D printing, to improve the environmental and social performance of manufacturing and supply chains.

4. Higher Education Institutions

Reimagining business and management with other Higher Education Institutions

Academics from Cranfield University and Warwick University showcased the Exploring Sustainable Futures game at a Professional Development Workshop at British Academy of Management (BAM) 2022. BAM is the leading authority on the academic field of management in the UK, supporting and representing the community of scholars and engaging with international peers. The theme was 'reimagining business and management as a force for good.' The workshop received positive feedback and succeeded in creating dialogue about the use of immersive games as a tool for sustainable education.

"It was a powerful experience, both in terms of imagining potential future challenges and scenarios, as well as in terms of trying to deal with them collectively, in small groups and as a society."

"Very interesting and useful session emphasising importance of effective collaboration and communication."

5. Businesses

VentureDay: Inviting business leaders on campus



After a one year hiatus due to Covid-19, the Bettany Centre for Entrepreneurship held their annual entrepreneurship conference VentureDay in June 2022.

Cranfield VentureDay is Cranfield University's annual entrepreneurship conference, which brings together entrepreneurs, investors, and academia for a day of learning and networking. Its primary objective is to help the Cranfield entrepreneurship ecosystem by addressing subjects critical to SMEs. The extensive range of workshops and sessions involve leading entrepreneurs, business angels, venture capitalists, and academics.

VentureDay 2022 involved a close collaboration between the Bettany Centre and the Sustainable Business Group to explore the intersection of sustainability and entrepreneurship, showing how businesses can build resilience in today's tumultuous climate while responding to huge planetary crises. The focus was on social, economic, and environmental challenges and opportunities facing businesses today. The aim was to inspire, inform and equip business leaders with the latest research and thought leadership to become more effective business leaders while responding to these global issues.

6. Students and alumni

Speaker series that spark connection

Helping hone our students' voice

Directly encouraging dialogue among the diverse groups of people we connect with through our teaching, research and outreach, the Sustainability Network Speaker Series is the platform to hear from thought leaders across all sectors. The series is a chance to delve into a sustainability-related hot topic and explore the challenges and opportunities of embedding sustainability in various areas of industry. We typically host panels and lectures with a mix of thought leaders, sustainability and industry professionals, government, NGOs and academe to seed this discussion. Every session has an opportunity for questions as well as a chance to connect with other like-minded people.



 In recognition of Menstrual Hygiene Day 2022, MSc Management and Corporate Sustainability student Wendy Laryea facilitated an online panel.

We offer our students the opportunity to lead their own sessions and give them experience of creating dialogue by interacting with senior professionals and academics. A particularly memorable student-run session was The Modern Period, facilitated by Management and Corporate Sustainability MSc student Wendy Laryea. Wendy successfully organised and facilitated an engaging and diverse panel which included Cranfield academics, founders of an award-winning non-profit, senior managers from well-established NGOs and CEO of a B-Corp business. Watch the full recording [here](#).

At every event and conference, we have a student blogger; we work with our students to help hone their voice by communicating their lessons and key highlights, encouraging them to seek comments and engage directly with speakers and invited guests. See a [blog](#) from a Management and Corporate Sustainability MSc student as they reflect on their experience at the Edie Leaders conference 2023.

Bringing back our alumni to continue the conversation



Stephanie Hussels, Director of the Bettany Centre for Entrepreneurship welcomes Cranfield alumni back regularly as part of the Entrepreneurship Speaker Series.

Speaker series across School of Management see many alumni return to inspire the next generation of managers and business leaders. The Bettany Centre for Entrepreneurship runs an [Entrepreneurship Speaker series](#) where they bring together students, alumni, staff, and small and medium enterprises (SMEs) to learn from entrepreneurs who share their journeys and lessons learned with the audience.

Each event concludes with a networking event, to allow plenty of time for curious students to connect with experienced entrepreneurs and ask them their pressing questions. Recent speakers include [Michael Toxvaerd](#) (Founder and Executive Director of Nightcap Plc, MBA 2003), [Lolade Oresanwo](#) (Co-founder WestAfricaENRG, MBA 2010), [Nick Jenkins](#) (Founder of Moonpig, MBA 1998), [Jerry Ejikeme](#) (CEO of Sochitel, MBA 2019).

While we acknowledge the importance of open dialogue with key stakeholders, we recognise the imperative to practise what we preach by fostering sustainable values across our campus operations and institution governance.

Principle 7 | Organisational Practices

We understand our organisational practices should serve as examples of the values and attitudes we convey to our students.

As well as enabling businesses and other organisations to improve their sustainability performance, we are working to continuously improve our own sustainability performance, governed by our Energy and Environment Committee. "Our vision is to be valued globally for tackling the real-world issues of today to deliver a sustainable future. We work in partnership with business, academia, governments, and other organisations to develop and deliver applied research and innovation science, technology, engineering, and management." - Professor Phil Hart, Chair Energy and Environment Committee 2021-2022

To support this vision, we have developed an estates strategy that aims to provide environmentally sustainable campuses that will offer enhanced and accessible working, learning and leisure facilities. Part of this goal is in achieving the University's environmental targets and aligning them with the UN Sustainable Development Goals, in particular the continued journey to a net zero carbon Cranfield campus. A dedicated Energy and Environment (Green) Team facilitates the delivery of the energy and environment objectives and reports progress to the Energy and Environment Committee (EEC), and in turn the Cranfield Executive Council, on a regular basis.

Beyond our efforts to reduce our environmental impact, we consider sustainability as inclusive of people's well-being. Part of our embedded approach to responsibility is promoting mental and physical wellbeing whilst studying at Cranfield. In many instances, these are integrated with our environmental sustainability efforts, such as The Green Walks around our 700-acre campus which won the BALI Landscaping Grounds Maintenance – Free Public Access 2022 award. Other examples include Gardening Club, organised by The Green Team, or the Cranfield Student Association events and art activities.

The Green Team, a group of staff and students with an enthusiasm to see a more sustainable campus life, is a hive of on campus and in-community action, as seen through the many happy pictures of the team on location. Our student Green Officer gives her account of her year in her post below. Driven by the Green Team, there has been huge progress in communicating our sustainable values through events, activities and challenges, both on campus and through social media.

Critically, we use our university campus as a test bed for sustainability innovation, utilising research expertise and available resources on campus to continuously improve our sustainable performance through our Living Laboratory project. The Living Laboratory is an example of the benefits of applying research and learning to the operational aspects of the University.

Our next challenge is to tackle our sustainability messaging as a corporate body, helping our students and staff see the work happening across the university from operational facilities to catering to research facilities.

Goals:

7a:

Continue progress towards achieving our 2030 environmental targets.

7b:

Provide training and support to academic staff to enhance our capabilities in education for sustainable development.

7c:

Continue to increase awareness of sustainability-related innovations and practices across our campus.

Governance

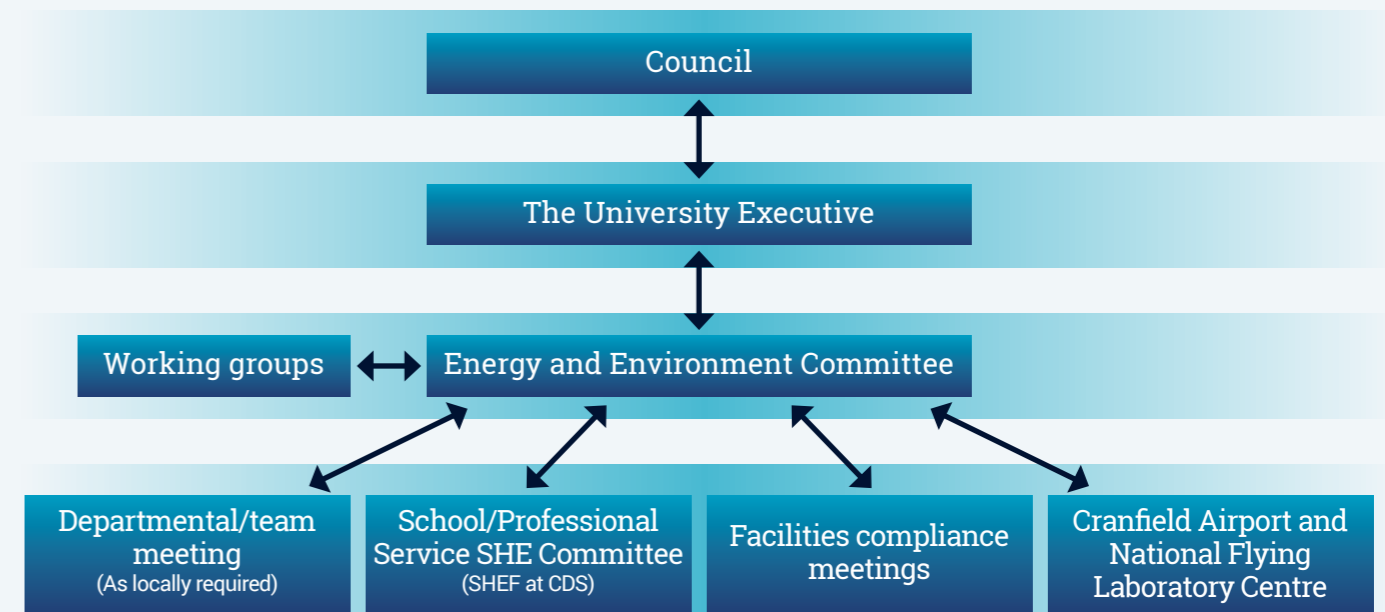


Fig. 9: Governance structure of our Energy and Environment Committee

The Energy and Environment Committee (EEC) is made up of faculty, business service professionals and facilities managers across the campus and reports on progress of Cranfield's environmental targets related to the campus and facilities. The Key Performance Indicators shown on page 70 are from the Annual Environmental Report 2021 – 2022 which shows how Cranfield University's environmental performance has changed since the previous UN PRME reporting period (2020-2021).



Sustainability across Cranfield's campus

Environmental targets

Issue	Description	Latest	Previous	SDG Contribution	Comments
Carbon	Scope 1 and 2 emissions tCO2	9,609	10,890	THE – SDG 13.4.1	12% reduction year on year
Carbon	Energy efficiency GJ/m2	0.79	0.83	THE - SDG 7.3	New buildings added on site
Carbon	Renewable energy GWh	3,298	2,236	THE - SDG 13.2.3	Biomass output increased
Waste	Avoidable waste %	18%	N/A	THE - SDG 12.2.4	Percentage of total waste in residual waste which could have been avoided
Waste	Total waste tonnes	1,052	784	THE - SDG 12.3.2	Previous figure was affected by Covid-19
Travel	Commuting alone by car %	35%	59%	THE - SDG 11.4.1	Impact of Covid-19/working from home
Water	Water consumption m3/head	34.1	36.2	THE - SDG 6.2.2	Water consumption has increased after Covid-19
Biodiversity	Biodiversity Action Areas ha	8.6	8.1	THE – SDG 15.2.3	In addition, 3,000 (0.6ha) of trees planted

Fig. 10: Progress against our environmental Key Performance Indicators in this reporting period versus previous reporting period.

In 2020, the University Council committed to a new set of environmental targets. The strategy for delivering these targets can be found on [Our Sustainable University webpage](#). The targets are to be achieved by academic year 2030/31. All Cranfield University and subsidiary activities are within scope.

- The aim of the net zero carbon target is to reduce Scope 1 and 2 carbon emissions as quickly as possible through energy saving and renewable energy. Any remaining emissions will require other measures. The strategy for Scope 3 emissions is still being developed and these emissions will be included as deemed appropriate for the sector.
- The zero avoidable waste target aims to minimise waste ending up in landfill or going for incineration and embraces the application of circular economy principles.
- The water reduction target aims to be consistent with best practice and future supply pressures in this part of the UK.
- The sustainable commuting target continues to focus on promoting alternatives to the car. Walking, cycling and bus are the main options.
- Biodiversity will benefit from the new target ensuring any development on site results in a net environmental gain. The masterplan for the University sets out areas for new buildings and also a wildlife corridor where new habitats can be established.
- The application of sensors on campus through the Urban Observatory is helping with the monitoring of air, water and soil. This will be developed in the short term to set out new pollution control monitoring and targets.
- The risks of climate change impacts on the University are being investigated. This will be developed into a climate change strategy.
- The University has signed the SDG Accord. This has led to more focus on the SDGs and how the university's contribution can be better communicated and developed.



Fig. 11: Visual summary of our 2030 targets.

Our progress on our energy campaign to achieve net zero carbon by 2030

In 2021, Cranfield University was awarded £4.9 million for a wide-range of environmental improvements centred on its district heating system under the Public Sector Decarbonisation Scheme phase 2, and in 2022 a further £11.3 million was awarded under phase 3, delivered by Salix Finance. The projects have involved the replacement of aging 24-year-old boilers with air source heat pumps, upgrading of the building management system, additions to the district heating system, insulating two large aircraft hangars and the installation of LED lighting. The university, which began working with Salix in 2009, has also extended its solar farm along with battery storage to help balance the electrical system as reliance on the gas fired combined heat and power generator is reduced.

A further bid to the Public Sector Decarbonisation Scheme (PSDS 3b) has secured an extra £3.36 million to be spent in 2024/25. This will fund the extension of the district heating network on to the residential campus. The previous PSDS projects have seen extensive improvements to the district heating with two MW of Air Source Heat Pump capacity, better controls and the steam network to the hangars replaced with a direct connection to the low temperature hot water network. Work is progressing well with the hangar insulation and door replacement and the new solar farm nearer the Test Area is nearing completion. It is too early to see the carbon benefit, but these works when complete and fully operational should result in a 30% saving, making a significant contribution to progress towards the 2030 net zero carbon target.

A recent energy campaign has seen over 50 members of staff and students sign up as energy champions. Energy data has been made available and is updated on a weekly basis. More building temperature sensors have been installed to ensure there is no overheating whilst comfort is maintained. A review of operations with laboratory managers, cleaning management, security and technical managers has helped identify opportunities to reduce energy use without affecting operations. Temperature settings have been optimised, also timings. This has included the setting of thermostatic radiator valves to a set maximum consistent with 21 degrees celsius. Buildings have had their hours of operation set to avoid heating and lighting being used unnecessarily. There has been a significant saving in several buildings.

The Green Team

The Energy and Environment team works in close collaboration with a 'Green Team'- a group of enthusiastic staff and students who are engaged in sustainability on and off campus. The Green Team are invited to actively engage with events and campaigns which support our Environmental Targets including 'net zero carbon emission by 2030', 'zero avoidable waste by 2030' and 'net environmental gain including biodiversity to be increased by 20%'.

This includes supporting a wide-range of initiatives, from energy saving as part of the 'Energy Champions network' or being actively involved in hands-on tree planting or gardening events to support biodiversity action on campus. The team run annual events including Green Week, Fairtrade Fortnight, honey harvesting, tree planting and biodiversity focused events including monitoring. Often, these events will tie into other University values, including wellbeing, financial sustainability, student experience and community outreach.

At the start of the academic year, recruitment begins for a new student-led Green Team with the Cranfield Student Association. This coincides with the recruitment of the new Cranfield Student Association (CSA) Green Officer- an elected member of the CSA Executive team. With a presence at welcome week activities, there is ample opportunity to inspire new students to be a part of Green Team activities throughout their time at Cranfield.

There is frequent collaboration with local councils, external charities and organisations to mutually support each other. An ongoing project with Central Bedfordshire Council is to improve transport links into campus and encourage use of sustainable travel methods. There have been recent joint projects with the Forest of Marston Vale (which Cranfield is part of) to plant trees on campus, and with Earthwatch Europe to plant a Miyawiki (tiny) forest. As part of campus outreach, the team has worked with Wildlife Trust and Hedgehog Friendly Campus. Staff, students and other tenants based on campus are invited to be part of organised events and support sustainability on and off campus.

The Green Team supports Ambition 2027 through directly supporting our Estates Strategy - 'To provide sustainable, environmentally secure and safe campuses that deliver enhanced working, learning and leisure facilities in support of our core activities' - by working together as a community to achieve environmental targets, and support the delivery of the United National Sustainable Development Goals which is also one of the Super Key Performance Indicators for the University.



Miyawiki Forest planting with the Green Team in Spring 2023, and honey harvesting workshops as part of Green Week 2022.

Louisa Winch Renewable Energy MSc 2022-2023 Green Officer

Louisa Winch studied Chemistry at Loughborough University on a career track towards Analytical Chemistry. She joined Cranfield in 2022 to do a master's in Renewable Energy after becoming increasingly aware of the urgency of climate action. Using the industry experience that Cranfield provides, Louisa has pivoted towards a career developing sustainable technology solutions. She is passionate about using science and technology to create a greener future.

“

“As Green Officer, I work to represent the student voice on all matters environment and sustainability within the university and surrounding area. With the help of the Green Team Committee, I help communicate university sustainability initiatives, run student engagement events and help others get involved in volunteering opportunities.

I work closely with Becky Shepherd (Environment Officer) to communicate between students and leadership in the energy and environment team, facilities and campus services teams. Through this, I have been able to engage students in helping the university achieve their own SDG goals, such as energy saving for carbon emission reductions and zero avoidable waste to landfill by 2030.

I've engaged with other students, particularly Green Team members, through our events, tree planting sessions, wildlife walks and monthly green film nights - mainly communicating the events through our social media channels and group chats. Working with the Environment and Energy Team, I have been able to help students sign up and take part in our 'Energy Champions' competition, where students can learn and put into practice easy ways to save energy on campus and in accommodation. We have set up a simple way for students to submit their actions with evidence to score points in competition for prizes at the end of each month and have had some great submissions so far. With ongoing monitoring, I look forward to seeing the impact that this initiative has on our total energy consumption and the related carbon emission reductions.”

”



Our Living Laboratory - using our campus as a test-bed for sustainability innovation

Cranfield University Living Laboratory is a testbed for transformative technologies and new approaches to deliver enhanced social, economic and environmental outcomes in urban, transport and infrastructure systems. With our own airport, solar power farm and range of large-scale facilities, the Cranfield campus is a microcosm of a modern city, where it is possible to experiment with innovation at scale using all the infrastructure of an urban environment.

Launched in 2015, the living laboratory centres on interaction between all Cranfield staff (academic and support staff), students and stakeholders. It is a springboard to drive integrated, transdisciplinary research, learning programmes and collaboration between Cranfield researchers and external partners.



Simon Jude, Senior Lecturer in Environmental Decision Making, Cranfield Environment Centre, monitoring Urban Observatory sensors.

Urban Observatory

Cranfield Urban Observatory, with its campus-wide sensor network, is a key component of the Living Laboratory and facilitates research projects, securing links between the expertise, facilities and overall capabilities of our unique campus. Data from the Urban Observatory is in turn used in teaching and learning. It is one of a network of six urban observatories, which have been established through UK Collaboratorium for Research on Infrastructure and Cities (UKCRIC) funding. This network of connected urban infrastructure observatories allows long-term monitoring of real-world urban infrastructure systems. A key objective is to capture and understand the complex interactions between infrastructure, the environment and society.

Major boost for sustainable aviation research

Cranfield University has been awarded £3.1 million to advance its sustainable aviation research, both into developing low-carbon aircraft, and decarbonising airport logistics. The funding from Research England will also have an immediate impact on reducing or eliminating greenhouse gas emissions from flying and airside operations at Cranfield University, amounting to 305 tonnes of CO₂e (carbon dioxide equivalent) per year.

“This funding is a welcome boost to our innovation and research at Cranfield University,” - comments Professor Iain Gray, Director of Aerospace at Cranfield University. **“In the longer term it will help us to make a significant contribution to the government’s ambition of net zero aviation by 2050 and global net zero targets, as new technologies and developments are adopted by the aviation industry. There is a pressing need for a clear pathway to a future world of sustainable aviation, and Cranfield University can help to build that.”**

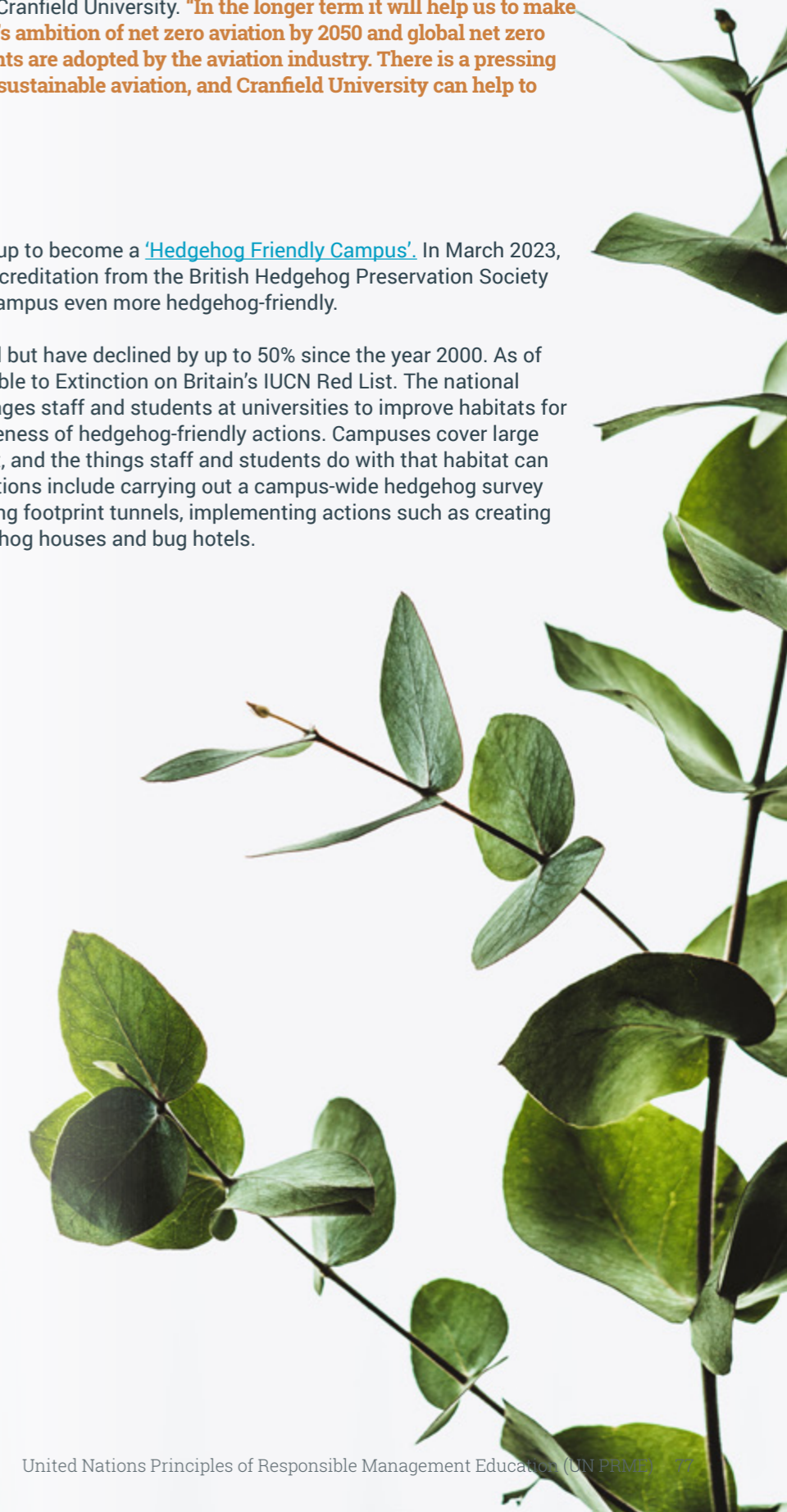
Hedgehog Friendly Campus

In 2021, Cranfield University officially signed up to become a **‘Hedgehog Friendly Campus’**. In March 2023, we were awarded a prestigious Silver level accreditation from the British Hedgehog Preservation Society for completing additional work to make the campus even more hedgehog-friendly.

Hedgehogs are Britain’s most iconic mammal but have declined by up to 50% since the year 2000. As of July 2020, they are officially listed as Vulnerable to Extinction on Britain’s IUCN Red List. The national Hedgehog Friendly Campus initiative encourages staff and students at universities to improve habitats for hedgehogs across campuses and raise awareness of hedgehog-friendly actions. Campuses cover large areas of often very suitable hedgehog habitat, and the things staff and students do with that habitat can make a big impact on local wildlife. These actions include carrying out a campus-wide hedgehog survey (to check for the presence of hedgehogs) using footprint tunnels, implementing actions such as creating hedgehog-friendly habitat, and placing hedgehog houses and bug hotels.

“Since achieving Bronze status last year, we have significantly increased areas on campus designated for biodiversity. Achieving Silver status as a Hedgehog Friendly Campus is a testament to our ongoing efforts to create a welcoming and safe habitat for all wildlife. We’re delighted to have this award to recognise the work we’re doing to protect hedgehogs.”

Gareth Ellis, Energy and Environment Manager, Cranfield University



Summary of goals to report against in next report

1a:

Contribute to a university-wide action plan around improving our performance in the Times Higher Impact ranking.

1b:

Appoint a sustainability/PRME champion in every Centre within Cranfield School of Management.

2a:

Bring sustainability knowledge to a wider student base by translating content from specialist sustainability modules to shorter sessions to be used in teaching across management disciplines (e.g. biodiversity and business).

2b:

Assess and select framework(s) for evaluating our progress in embedding sustainability and responsible management across our curricula (e.g. UN Global Compact Principles).

2c:

Review potential approaches for measuring our application of the PRME principles in teaching and learning (e.g. student feedback, course reviews).

2d:

Articulate sustainable and responsible management practice more explicitly in the School of Management's vision and 2030 strategy.

3a:

Increase the visibility of History of Corporate Social Responsibility tool by making it open access through our webpage.

3b:

Increase the reach and impact of the Exploring Sustainable Futures game including through partnerships with other Higher Education Institutes. Work with academics from other disciplines to create game versions for more industry sectors (e.g. aviation, food).

3c:

Use innovative research methods to evaluate the impact of our sustainability education on students and their organisations.

4a:

Incentivise and support research at the intersection of sustainability and other disciplines.

4b:

Work with the library team to include SDG tags against all published research to enable tracking of research output by SDG.

5a:

Enrol 80-100 executive students per annum onto the Sustainability MSc.

5b:

Launch a Climate Action Planning programme to all Business Growth programme alumni as the next stage of growth and development.

5c:

Creating an active alumni network of Sustainability MSc graduates.

6a:

Increase the amount of PRME-related external communications, including blogs (e.g. research into practice blogs). Work with the communications and media teams across the University to include SDG tags against outputs to enable tracking of output.

6b:

Increase the number of Sustainability Network Speaker Series events co-hosted with other disciplinary group within School of Management and wider university.

6c:

Create a sustainability/PRME Advisory group including representatives from diverse stakeholder groups.

7a:

Continue progress towards achieving our 2030 environmental targets.

7b:

Provide training and support to academic staff to enhance our capabilities in education for sustainable development.

7c:

Continue to increase awareness of sustainability-related innovations and practices across our campus.

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